

**THE
FARMER'S GUIDE
IN
HIRING AND STOCKING FARMS.**

CONTAINING

**An Examination of many Subjects of great Importance
both to the common Husbandman, in hiring a Farm;
and to a Gentleman on taking the Whole or Part of his
Estate into his own Hands.**

PARTICULARLY,

**The Signs whereby to judge of Land.
The Points to be attended to in hiring
a Farm,**

**The Quantity of Land of every Sort
proportioned to a given Sum of
Money.**

**The most advantageous Method of
disposing of any Sum from 50 l. to**

**20,000 l. in Husbandry on culti-
vated or uncultivated Soils.**

**The Means of rendering Agriculture
as profitable to Gentlemen, as to
common Farmers; and as benefi-
cial a Profession as any other.**

**Hints to those Gentlemen who Farm
for Pleasure alone.**

ALSO,

Plans of Farm-yards, and Sections of the necessary Buildings.

By the AUTHOR of The FARMER'S LETTERS.

VOL. II.

L O N D O N:

**Printed for W. STRAHAN; W. NICOLL, No 51. in St. Paul's
Church-yard; B. COLLINS, at Salisbury; and
J. BALFOUR, at Edinburgh.**

M, DCC, LXX.

THE FARMER'S GUIDE

IN HIRE AND STOCKING FARMS

CONTAINING
An Examination of many Subjects of great Importance
both to the Tenant and the Landlord, in hiring a Farm;
and to the Landlord in taking the Wages of his
Hire into his own Hands.

TARTICULARS

The first part of the book is a
very useful and necessary
the second part of the book is a
very useful and necessary
the third part of the book is a
very useful and necessary



CHAP. XIV. Of the various
methods of improving the
land, from 1800 to 1800.

BY THE AUTHOR OF THE FARMER'S LETTERS.

CHAP. XXV. Of the various
methods of improving the
land, from 1800 to 1800.

CHAP. XXVI. Of the various
methods of improving the
land, from 1800 to 1800.

CHAP. XXVII. Of the various
methods of improving the
land, from 1800 to 1800.

CHAP. XXVIII. Of the various
methods of improving the
land, from 1800 to 1800.

CHAP. XXIX. Of the various
methods of improving the
land, from 1800 to 1800.

CHAP. XXX. Of the various
methods of improving the
land, from 1800 to 1800.

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INTRO.

T H E
FARMER'S GUIDE.

CHAP. XXIII.

Of the most advantageous method of disposing of any sum from 1000 l. to 1600 l. in farming.

THIS chapter requires more variations than the preceding one, for an obvious reason: It embraces a greater variety of soils; not that the preceding sized farms are not scattered over as great a variety of land, but the probability of it is not so great; and it is impossible that these calculations should contain a sketch of every farm that can be supposed to exist: for that purpose five times as many folios would be necessary as I write pages; and a farmer would find the search for his case of difficulty more perplexing than the conquer-

ing twenty. For which reason I attempt to catch only the most striking distinctions, by introducing in each chapter such calculations only as are probably attended with the most parallel cases in real business.

I begin here to introduce farms that receive the expensive improvement of marling, chalking, claying, &c. &c. &c. not, however, upon so extensive a plan as I shall hereafter. These undertakings require very large sums of money, and are highly pernicious when undertaken with small ones.

N^o I.

Two hundred and twenty acres arable, soil clay or loam.

This farm, although termed arable, yet is not all so; the 20 acres being grass about the house, for the conveniency of being near it.

	Stock.	l.	s.	d.
Rent, at 17 s.	-	18	7	0
Tythe, at 4 s.	-	44	0	0
Rates, at 4 s.	-	44	0	0
		275	0	0
		Live		

(3)

Live Stock. *l. s. d.*

Eight horses,	-	-	120	0	0
25 Cows,	-	-	125	0	0
4 Sows,	-	-	5	0	0
			<u>£. 250</u>	0	0

Implements.

A broad-wheeled waggon,	-	-	65	0	0
A narrow-wheeled ditto,	-	-	20	0	0
Three carts,	-	-	30	0	0
Two ploughs,	-	-	6	6	0
Two pair of harrows,	-	-	5	0	0
Two rollers,	-	-	4	0	0
Harness for eight horses,	-	-	16	0	0
Sixty sacks,	-	-	9	0	0
Sundry small articles,	-	-	20	0	0
Dairy furniture,	-	-	30	0	0
			<u>£. 205</u>	6	0

Seed and Tillage.

Four earths on 50 acres of	-	-	-	-	-
wheat land,	-	-	40	0	0
Seed,	-	-	20	0	0
Sowing,	-	-	5	0	0

Carry over, £. 61 5 0

(4)

Brought over,	£. 61	5	0
Water-furrowing,	-	2	10 0
Three earths on 50 acres of spring-corn land,	-	30	0 0
Seed,	-	25	0 0
Ditto, clover,	-	10	0 0
Sowing,	-	1	5 0
Two earths on fifty acres of bean land,	-	20	0 0
Seed,	-	35	0 0
Sowing,	-	2	10 0
Water-furrowing,	-	1	5 0
Harrowing fifty acres,	-	2	10 0
	£. 181	5	0

Labour.

One earth on fifty acres of wheat land,	-	2	10 0
Harrowing,	-	0	12 0
Sowing,	-	0	12 6
Water-furrowing,	-	2	10 0
Weeding,	-	2	10 0
Reaping, &c. at 6 s.	-	15	0 0
Thrashing the crop, 3 qrs. per acre, 150 qrs. at 2 s.	-	15	0 0

Carry over,	£. 38	14	6
Carrying			

(3)

Brought over,	£. 38	14	6
Carrying out 20 qrs. at a time,			
one day of two men; say			
eight times,		8	16 0
Three earths on fifty acres of			
spring-corn land,		7	10 0
Harrowing,		0	12 6
Sowing,		0	12 6
Water-furrowing,		1	5 0
Mowing and harvesting, at 4 s.		10	0 0
Thrashing the crop, 4 qrs. per			
acre, 200 qrs. at 1 s.		10	0 0
Carrying out 36 acres of bar-			
ley, 144 qrs. 30 qrs. at a			
time; two men one day,		0	10 0
Three earths on fifty acres of			
bean land,		7	10 0
Sowing,		2	18 0
Water-furrowing,		1	5 0
Hand-hoeing once, at 6 s.		15	0 0
Horse-hoeing three times, at 6 d.		3	15 0
Reaping and harvesting, at 7 s.		17	10 0
Thrashing, 3 qrs. per acre, 150			
qrs. at 1 s.		7	10 0
Carry over,	£. 125	0	6
B 3			Carry-

Brought over,	£. 125	0	6
Carrying out 20 qrs. at a time,			
two men one day,		10	16
Chopping and raking 50 acres			
of wheat stubble, and carting			
home, proportioned to N ^o 1,			
the last chapter, - - -		6	9
Ditching 250 perches, at 1 s. -	12	10	0
Carting 750 loads of earth into			
the farm-yard, 30 loads a day,			
3 d. per load, and 2 s. 6 d.			
driving, 25 days, 10 s. -	12	10	0
33 Head of cattle at 12 loads,			
396 loads for mixing these			
with 750 of earth, 1146 loads			
at 1 d. - - -		4	15
Carting 1146 loads, 30 per day,			
3 s. per score; filling and			
spreading 2 s. 6 d. driving 7 s.			
per day, 38 days, - - -	13	6	0
Mowing, making, carting, and			
stacking 20 acres of grass in-			
to hay, in proportion to the			
article N ^o 1, the last chapter,	7	16	0
Cutting chaff, ditto, - - -	1	2	0
Carting faggots, - - -	0	7	6
Carry over, £. 184	3	6	
			1

(8)

Brought over, £ 184 3 6

I calculate the preceding work

to employ the teams 218

days, therefore suppose 80

days employed in manure

from the nearest town, - - 8 0 0

Sundry small articles, - - 10 0 0

£. 202 3 6

Sundry articles. l. s. d.

Shoeing, - - - 5 0 0

Wear and tear, - - - 35 0 0

Market expences, - - 4 0 0

80 loads of manure of a broad-

wheeled waggon, - - 40 0 0

Cash in hand, to answer inci-

dental expences, - - 68 0 0

£. 144 0 0

Total of these articles, £. 1257 14 6

In this account the introduction of a broad-wheeled waggon causes several variations in the article of labour. I have also sunk the farmer's earnings, from the probability of such a farmer as this not

working at all: Some I know do; but we must, in every article, have an eye to reality.

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	275	0	0
Seed for 50 acres of wheat, 50 of barley and oats, 50 of clover, and 50 of beans,	- - -	80	0	0
Labour,	- - -	202	3	6
Sundry articles,	- - -	84	0	0
		£. 641	3	6

<i>Produce.</i>				
50 Acres of wheat, 150 qrs.		300	0	0
36 Acres of barley, 144 qrs.		115	4	0
50 Acres of beans, 150 qrs.		240	0	0
25 Cows,	- - -	125	0	0
		780	4	0
Expences,	- - -	641	3	6
		139	0	6
Interest of stock,	- - -	62	17	0
Profit,	- - -	£. 76	3	6

This farm yields but 11 l. 1 s. per cent. on the capital: It may therefore be determined,

mined, under the foregoing management, to be by no means advantageous. We must not, however, compare it too readily with former estimates, as the difference of the principles on which the calculations are made, will not admit of it. If this arable farm is not beneficial to a farmer, it certainly will not be to a gentleman. His account will stand as follows :

	Stock.	l. s. d.
Rent, &c.	- - -	275 0 0
Live stock,	- - -	250 0 0
Implements,	- - -	205 6 0
Seed and tillage,	- - -	181 5 0
Labour, - - -	£. 202 3 6	
27 per cent. - - -	54 14 6	
		256 18 0
Sundry articles, - - -	- - -	144 0 0
		£. 1312 7 0

ANNUAL ACCOUNT.

	Expences.	
Rent, &c.	- - -	275 0 0
Seed,	- - -	80 0 0
Labour,	- - -	256 18 0
Sundry articles,	- - -	84 0 0
		£. 695 18 0
		Produce.

((to))

Produce.	7	5	2
The same,	78	4	0
Expences,	695	18	0
	£	84	6
Interest,	65	12	0
	£	18	14

This profit is 6 *l.* 7 *s.* *per cent.* or in other words ruin, and yet the business is very considerable, would require much attention, and the constant risque great in such a situation. Suppose the gentleman employed a bailey, that expence would leave him but 3 *per cent.* for his money: Suppose he sold his produce only at 5 *per cent.* worse than the farmer, (no improbable supposition), that deduction will leave him without a shilling: the product of one year would soon be insufficient for the expences of another, additions would be requisite to his capital, and, in a word, two or three thousand pounds dissipated in a very few years, and all on a farm so small as about 200 acres of land.

The profit of these farms is not to be increased by assigning them a certain num-

ber of sheep; that animal is a great enemy to a dairy: If the swine are not taken into the account, the cows must not be supposed to yield a profit of five pounds a head; and it is requisite that the clover be well stocked with young hogs, bred by the sows, or the product by swine will fall too low. The addition of sheep would be attended with loss.

As this is the first farm in which I have supposed a broad-wheeled waggon to be used; as that machine absolutely requires eight horses, whether requisite or not to the culture of the land, I shall next calculate it under the circumstance of being managed with six horses, which variation will discover when we are arrived at that point in which eight are necessary.

N^o 2.*Variation the first.*

The same farm cultivated with six horses.

<i>Stock.</i>		<i>l. s. d.</i>
Rent, &c.	275	0 0
6 Horses,	98	0 8
Carry over,	£. 90	0 0
		28 Cows,

Brought over,	£. 90 0 0
28 Cows,	140 0 0
4 Sows,	5 0 0
	£. 235 0 0

Implements.

	l.	s.	d.
A waggon,	25	0	0
Two Carts,	20	0	0
Three ploughs,	4	14	6
Harrows and rollers,	9	0	0
Harness,	10	0	0
Thirty sacks,	4	16	0
Sundry small articles,	20	0	0
Dairy furniture,	30	0	0
	£. 123	4	6

Seed and tillage.

As before,	£. 181	5	0
------------	--------	---	---

Labour.

Work on 50 acres of wheat from ploughing to thrashing,	£. 38	14	6
as before,	-	-	-
Carrying out 10 qrs. at a time,	1	12	0
Carry over,	£. 40	6	6
			Labour

Brought over,	£. 40	6	6
Labour on 50 acres of barley,			
&c. from ploughing to thrash-			
ing, as before,	-	-	30 0 0
Carrying out 40 acres of barley,			
4 qrs. per acre, 160 qrs. 12			
at a time; say 14 times,	-	-	1 8 0
Labour, as before, on bean-land,			
except carriage,	-	-	55 0 0
Carrying out 9 qrs. at a time,			
150 qrs. 17 times,	-	-	1 14 0
Chopping, raking, and carting			
stubble,	-	-	6 0 0
Ditching 250 perches,	-	-	12 10 0
Carting 750 loads, 20 per day,			
at 6 s. 3 d. 38 days,	-	-	11 17 1
Mixing dung and earth,	-	-	4 15 6
Carting 116 loads, 20 per day,			
57 days, 4 s. 3 d.	-	-	12 02 3
Mowing, making, &c. hay,	-	-	7 16 0
Cutting chaff,	-	-	1 2 0
Carting faggots,	-	-	0 7 6
Sundry small articles of labour,	10	0	0
	£. 194	18	10

Sundry

<i>Sundry articles.</i>		<i>l. s. d.</i>
Shoeing,		3 12 0
Wear and tear,		25 0 0
Market expences,		4 0 0
Cash in hand, to answer incidental expences,		50 10 0
		£ 82 12 0
Total of these articles,		£ 1092 0 4

It is here necessary to remark, that I find, on calculation, this farm to be exactly the quantity of land which six horses are able to cultivate and manage. This appears from the following table of work:

Ploughing 50 acres of land for wheat once,		2 days 17
Harrowing ditto,		1
Ploughing 100 acres of spring corn 3 thrice,		100
Harrowing 50,		3
Horse-hoeing 50 thrice,		28
Harvesting 150 acres,		15
Carrying out the corn,		47
Carting 50 acres stubble,		4
Ditto manure,		95
Ditto 20 acres of hay,		5
Ditto faggots,		2

This

This account, it is true, overshoots the year six days; but then the six horses are supposed to be employed both in carrying the corn out and in that of the manure; in all which work it is to be supposed four horses are sufficient: this makes a difference of 12 days of two horses, which will be an ample allowance for accidental jobs, and for such very bad weather as will admit of no work being done. The constant employment of these horses, however, precludes all bringing manure from the nearest town, a business I have supposed always to be done when tillage, and its consequences, does not fully employ the team. Now here a difficulty occurs: I suppose these farms to be the same in every respect but the number of horses, in the first, eight and a broad-wheeled waggon manured the farm with 48 l. worth of town-dung, &c. every year. What difference should I, in consequence, make in the produce?

In several of the preceding farms, this article of manuring has been various; when very considerable, I have increased the product; but accuracy in a matter impossible to be reduced to exactness, and when

when no comparison was making of the same farm in a different course of management, was not so essential. Here it is necessary to be more attentive: The only method which strikes me is, to state the produce as before, and then deduct the cost of the former manure, with the profit there ought to be on it. Suppose 20 *per cent.* for a less profit, it would not answer to manure. Suppose we state the account thus:

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Price of the manure, - - -	40	0	0
Labour, - - -	8	0	0

The broad-wheeled waggon and

two additional horses are not,

in the former instance, em-

ployed in manuring alone;

we must not, therefore, de-

duct the interest of the whole

sum of their amount. — Part

of this article, and part of

that of wear and tear, &c.

we shall call - - -

Interest at 20 <i>per cent.</i> - - -	10	0	0
	11	12	0

£. 69 12 0

That

That this will give the truth accurately I do not pretend: it is indeed a difficulty which is not easily got over; but the reader will not imagine, that such a system of calculations as this can be accurately consistent in matters never yet reduced to experiment. If I was to insinuate such a thing, the pretension ought rather to be treated as a chimera, than depended upon for a probability. Accuracy is not so much the design of these papers, as the enabling the calculator to form calculations of his own that are *exactly* adapted to his land.

ANNUAL ACCOUNT.

<i>Expenses.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.		275	0	0
Seed,		80	0	0
Labour,		194	18	10
Sundry articles,		32	12	0
		£. 582	10	10

<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Wheat,		300	0	0
Forty acres of barley,		128	0	0
Carry over,		£. 428	0	0
C				
		Beans,		

(18)

Brought over,	£. 428	0	0
Beans,	240	0	0
28 Cows,	140	0	0
	<u>£. 808</u>	0	0
Deduct,	69	12	0
	<u>738</u>	8	0
Expences,	582	10	10
	<u>155</u>	17	2
Interest,	54	12	0
Profit,	<u>£. 101</u>	5	2

From hence we find, that this method of managing such a farm, is superior to the other by near 30 *l.* a year in the produce. The interest *per cent.* of the capital is here 14 *l.* 5 *s.*; the former gave only 11 *l.* 1 *s.*; of so great importance is it to keep no more horses than requisite. But many farmers are, in this respect, so much infatuated, that they let their horses run away with all the profit of their farms. The gentleman's account upon this variation will be as follows:

Stork.

Stock,	£. 100 0 0
Rent, &c.	275 0 0
Live stock,	235 0 0
Implements,	125 4 6
Seed and tillage,	185 1 6
Labour,	£. 194 18 3
27 per cent.	52 13 0

Sundry articles, **82 12 0**

£. 1148 9 0

ANNUAL ACCOUNT.

Expences.

Rent, &c.	275 0 0
Seed,	80 0 0
Labour,	247 11 0
Sundries,	32 12 0

£. 635 3 10

Produce.

The same, **738 8 0**

Expences, **635 3 10**

Interest of stock, **57 8 0**

Profit, **£. 45 16 2**

The capital pays 9 l. per cent. The different methods of managing this farm must

not be supposed to condemn the use of a broad-wheeled waggon, and the propriety of allotting a greater plenty of implements than I had before stated; both are evidently advantageous; but in this case more than balanced by the two extraordinary horses.

N^o 3.

Variation the second.

One hundred and seventy acres arable, the soil light enough for turnips.

This farm I suppose to contain ten acres of grass land around the house for convenience.

Stock.

Rent, &c.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 170 acres, at 17 s.	144	10	0
Tythe, at 4 s.	28	18	0
Rates, &c. at 4 s.	28	18	0
	<u>£. 202</u>	<u>6</u>	<u>0</u>

Live stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Six horses,	90	0	0
20 Cows,	100	0	0
Carry over,	<u>£. 190</u>	<u>0</u>	<u>0</u>
		3	Sows,

Brought over,	£. 190	0	0
3 Sows,	-	3	10
80 Steers or heifers,	-	400	9
A waggon, 2 carts, 3 ploughs,	-	-	-
harrows, rollers, harness, and	-	-	-
sacks, the same as in N ^o 2 -	-	73	4
Sundries,	-	-	10
Dairy furniture,	-	20	0
	£. 103	4	5

Seed and tillage.

Four earths on 40 acres of wheat	1	3	4
land,	32	0	0
Seed,	20	0	0
Sowing,	1	0	0
Water-furrowing,	1	0	0
Three earths on 40 acres of			
spring-corn land,	24	0	0
Seed,	20	0	0
Clover ditto,	8	0	0
Harrowing,	2	0	0
Sowing	1	0	0
Water-furrowing,	0	10	0
One earth on 40 acres of fallow,	8	0	0
	£. 117	10	0

Labour.		l.	s.	d.
One earth on 40 acres of wheat		2	0	0
Land,		2	0	0
Harrowing,		0	10	0
Sowing,		0	10	0
Water-furrowing,		1	0	0
Weeding,		2	0	0
Reaping and harvesting,		12	0	0
Threshing 3 qrs. $\frac{1}{2}$ d. per acre,		14	0	0
Carrying out 10 qrs. at a time,		1	8	0
Three earths on 40 acres of spring				
corn land,		6	0	0
Harrowing,		0	10	0
Sowing,		0	10	0
Water-furrowing,		0	10	0
Mowing and harvesting, at 4 s.		8	0	0
Threshing $4\frac{1}{2}$ qrs. per acre,		9	0	0
Carrying out 30 acres of barley,		1	8	0
Five earths on 40 acres of turnips,		10	0	0
Harrowing,		0	10	0
Sowing,		0	10	0
Hand-hoeing twice at 7 s.		14	0	0
Drawing the turnips and carting				
them home, at 7 s. 6 d.		15	0	0
Carry over,		£. 99	0	0
Chopping				

Brought over,	£. 99	00
Chopping and raking 40 acres of stubble, - - -	3	00
Carting ditto to farm-yard, - -	2	00
Mowing and making 10 acres of hay, at 5 s. - -	2	10 0
Carting and stacking, - - -	1	8 0
Ditching 200 perches, - - -	10	00
Carting the earth, 600 loads into farm-yard, 10 days, at 6 s. 3 d.	3	2 6
106 Head of cattle, at 12 loads each, 1272 loads with 600 of earth, 1872 loads, mixing, at 1 d. - - -	7	16 0
Carting 40 loads per day, 93 days, at 4 s. 3 d. - - -	19	15 3
Cutting 400 bushels of chaff, at 4 d. -	0	16 8
Carting faggots, - - -	0	5 0
Sundry small articles, - - -	9	00
	£. 158	13 5
<i>Sundry articles.</i>		
hoeing, and wear and tear, - - -	28	12 0
Market expences, - - -	3	00
50 Loads of straw, - - -	35	00
Carry over,	£. 61	12 0
C 4		Cash

Brought over, £. 61 12 0
 Cash in hand, to answer incidental expences, - - - 50 0 0
£. 111 12 0
 Total of these articles, £. 1286 15 11

ANNUAL ACCOUNT.

Expences. l. s. d.
 Rent, &c. - - - 202 6 0
 80 Heifers, - - - 400 0 0
 Seed for 40 acres of wheat, 40
 of spring-corn, 40 of cloyer,
 and 40 of turnips, - - - 49 0 0
 Labour, - - - 158 13 6
 Sundry articles, - - - 61 12 0
£. 871 11 6

Produce. l. s. d.
 40 acres of wheat, 140 qrs. - 280 0 0
 30 of barley, 135 qrs. - 108 0 0
 20 Cows, - - - 100 0 0
 80 Heifers, at 7 l. - 560 0 0
£. 1048 0 0

Produce,

Produce,	£. 1048	0	0
Expences,	87	11	6
	176	8	6
Interest of stock,	64	6	0
Profit,	£. 112	2	6

The capital pays 13 *l.* 13 *s.* *per cent.* which is not so much as a farmer ought to receive from such a sum of money; whence we may conclude, that we shall meet with more beneficial farms under this class. The proportioning the product to the manure is in every instance difficult. The above accounts may not be far from the truth for the four or five first years of the lease; but I am inclined to believe, that afterwards the product, both of corn, turnips, and clover, will, by degrees, become much more considerable; for the manure annually amounts to about 23 loads an acre over 80 acres of land; that is, over all the turnip and clover land, which is so rich a dressing, that I should think five quarters of wheat, and six of spring-corn, the lowest average product; turnips to the value of 9 *l.* *per* acre; and clover to that of 6 *l.* or 8 *l.* after a few of the first years are over.

over. When this improvement was effected, the capital would pay between 20 and 30 per cent.; but it would be launching too far to trace such a progression. The following is the state of the gentleman's account of this farm:

Stock.	l.	s.	d.
Rent, &c.	202	6	0
Live stock,	598	10	0
Implements,	103	4	6
Seed and tillage,	117	10	0
Labour,	£ 158	13	5
87 per cent.	42	18	0
	201	11	5
Sundry articles,	111	12	0
	£ 1329	13	11

ANNUAL ACCOUNT.

Expences.	l.	s.	d.
Rent, &c.	202	6	0
50 Heifers,	400	0	0
Seed,	49	0	0
Labour,	201	11	5
Sundry articles,	61	12	0
	£ 914	9	5

Produce.

	l.	s.	d.
<i>Produce</i>			
The same, - - - - -	1048	0	0
Expences, - - - - -	914	9	3
	133	10	7
Interest, - - - - -	66	9	0
Profit, - - - - -	£. 67	11	7

This profit is 10 per cent.; but the business is of so extended a nature, and the attention requisite for it so regular, that a gentleman should not too quickly imagine he is to reap such an advantage. I have often remarked the numerous deductions to be made from his profit; but which are many of them unsuceptible of calculation.

N^o 4.*Variation the third.*

Two hundred and ten acres, one third grass and two thirds arable, soil clay and light loam.

Stock.

	l.	s.	d.
Rent, &c. - - - - -	189	0	0
Rent of 210 acres, at 18 s. -			
Carry over, £. 189	0	0	
Tythe			

Brought over,	£. 189	0	0
Tythe, at 4 s.	37	16	0
Rates, &c. at 4 s.	37	16	0

£. 264 12 0

Live stock. l. s. d.

Six horses,	90	0	0
35 Oxen,	350	0	0
5 Cows,	25	0	0
160 Sheep,	96	0	0
26 Heifers,	60	0	0
1 Sow,	1	0	0

£. 622 0 0

Implements.

A waggon,	25	0	0
Two carts,	20	0	0
Three ploughs,	4	14	6
Harrows and rollers,	8	0	0
Harness,	10	0	0
Sacks,	4	10	0
Sundry small articles,	15	0	0
Dairy furniture,	3	0	0

£. 90 4 6

Seed

*Seed and tillage.**L. s. d.*

Four earths on 35 acres of wheat

land,

28 0 0

Seed,

17 10 0

Sowing,

0 17 6

Water-furrowing,

0 17 6

Three earths on 35 acres of

spring-corn land,

21 0 0

Seed,

17 10 0

Sowing,

0 8 9

Water-furrowing,

0 8 9

Seed clover, 35 acres,

7 0 0

Sowing,

0 8 9

Harrowing,

1 15 0

One earth on 35 acres of fallow,

7 0 0

L. 102 16 3

Labour.

One earth on 35 acres of wheat

land,

1 15 0

Sowing,

0 8 9

Water-furrowing,

0 17 6

Harrowing,

0 8 9

Weeding,

1 15 9

Reaping and harvesting, at 6 s.

10 10 0

Carry over,

L. 15 15 0

Thrashing

(89)

Brought over,	£. 15	15	0		
Threshing the crop, $3\frac{1}{2}$ qrs. per acre, 122 $\frac{1}{2}$ qrs. at 2 s.		12	5	0	
Carrying out 10 qrs. at a time					
12 journies,					
Three earths on 35 acres of spring-corn land,		5	5	0	
Sowing,			8	9	
Ditto the clover,			8	9	
Harrowing, &c.		1	15	0	
Mowing and harvesting, at 4 s.		7	0	0	
Threshing the crop, $4\frac{1}{2}$ qrs. per acre, 157 $\frac{1}{2}$ qrs. at 1 s.		7	17	6	
Carrying out 25 acres of barley, 112 $\frac{1}{2}$ qrs. 12 qrs. at a time,					
9 journies,			0	18	0
Mowing, making, and stacking					
11 acres of hay,			4	0	0
Five earths on 35 acres of turnips,		8	15	0	
Hand-hoeing twice, at 7 s.		12	5	0	
Drawing and carting home, at 7 s. 8 d.					
			13	2	6
Chopping and raking 35 acres of wheat stubble,			2	12	6
Carting ditto to farm-yard,		1	15	0	
Carry over,	£. 95	7	0		
Ditching					

Brought over,	£. 95	7	0
Ditching 200 perches, and carting the earth to farm-yard, as before, - - -	13	8	6
66 Head of cattle, 792 loads of dung, and 600 of earth, in all 1892 loads mixing, at 1 d.	5	16	0
Carting ditto, 20 loads per day, 170 days, 4 s. 3 d. - - -	14	17	6
Cutting 400 bushels of chaff, -	0	16	8
Carting faggots, - - -	0	5	0
Sundry small articles, - - -	9	0	0
	£. 139	4	8
<i>Sundry articles.</i>	1	3	8
Shoeing, and wear and tear, -	23	12	0
Market expences, - - -	3	0	0
40 Loads of straw, - - -	30	0	0
Cash in hand, - - -	50	0	0
	106	12	0
Total of these articles, - - -	£. 132	5	9

The reader, doubtless, remarks that I throw the arable of this farm into the annual course of, one turnips, two barley, three clover, four wheat; the turnips and

clover manured every year with 20 loads of farm-yard compost *per* acre. The horses will not have time to bring manure from any town, as the work I have inserted above employs them for 285 days. I should remark, that the turnips carting, though set down to the whole team, yet is the work only of two or three horses, constantly supplying the cattle with food. I stock the 70 acres of grass with 35 large oxen, and I calculate the 35 acres of turnips to supply them in winter, with the assistance of some straw; besides which, they will fat 20 heifers, and winter 160 sheep, to be summer-fed with the cows and horses on the clover; but though I assign the stock, their food, in this manner, yet every farmer must know, that the cows, horses, and sheep must by turns follow the fatting cattle for change. The principal point is, that 70 acres of grass, 35 of clover, 35 of turnips, 70 of straw, and thirty pounds worth bought, will maintain the above cattle; and that no one can doubt.

ANNUAL

ANNUAL ACCOUNT.

<i>Expences.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	-	-	-	264	12	0
35 Oxen,	-	-	-	350	0	0
160 Sheep,	-	-	-	96	0	0
20 Heifers,	-	-	-	60	0	0
Seed for 35 acres of wheat, 35						
of spring corn, 35 of clover,						
and 35 of turnips,	-	-	-	42	17	6
Labour,	-	-	-	139	4	8
Sundry articles,	-	-	-	56	12	0
				<u>£. 1009</u>	<u>6</u>	<u>2</u>

<i>Produce.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
35 Fat oxen, at 16 l.	-	-	-	560	0	0
20 Ditto heifers,	-	-	-	100	0	0
160 Ditto sheep,	-	-	-	192	0	0
5 Cows,	-	-	-	25	0	0
35 acres of wheat, 122½ qrs.						
at 40 s.	-	-	-	245	0	0
112½ qrs. of barley, at 16 s.	-	-	-	90	0	0
				<u>£. 1212</u>	<u>0</u>	<u>0</u>
Expences,	-	-	-	1009	6	2
					<u>203</u>	<u>13</u>
Interest of stock,	-	-	-	66	5	0
Profit,	-	-	-	<u>£. 137</u>	<u>8</u>	<u>10</u>
VOL. II.				D	The	

The capital pays 15 *l.* 7 *s.* per cent.
With the gentleman the account is as follows :

	<i>Stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	264	12	0
Live stock,	- - -	622	0	0
Implements,	- - -	90	4	6
Seed and tillage,	- - -	102	16	3
Labour,	- £. 139 4 8			
27 per cent.	- 37 10 0			
		176	14	8
Sundry articles,	- - -	106	12	0
		£. 1362	19	5

ANNUAL ACCOUNT.

	<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	- - -	264	12	0
35 Oxen, 160 sheep, 20 heifers,	- - -	506	0	0
Seed,	- - -	42	17	6
Labour,	- - -	176	14	8
Sundry articles,	- - -	56	12	0
		£. 1046	16	2

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	- - -	1212	0	0
Expences,	- - -	1046	16	2
		165	3	10
Interest,	- - -	68	2	0
		£. 97	1	10
				12 <i>l.</i>

12 l. 2 s. is the interest the capital pays, which is more than in the last farm by better than 2 per cent. which difference is owing to this containing so much more grass.

No 5.

Variation the fourth.

One hundred and fifty acres, all grass.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 150 acres, at 1 l.	-	150	00
Tythe, at 4 s.	-	30	00
Rates, &c. at 4 s.	-	30	00
		<u>£. 210</u>	<u>00</u>

Live stock.

One horse,	-	15	00
150 Steers, at 5 l.	-	750	00
		<u>£. 765</u>	<u>00</u>

Implements.

One three-wheeled cart,	-	7	00
Sundry small articles, including harness,	-	6	00
		<u>£. 13</u>	<u>00</u>

Labour.

150 Perch of ditching, and carting the earth into the land, 3 s.	22	10	0
Sundry small articles,	-	5	00
		<u>£. 27</u>	<u>10 0</u>

D 2

Sundry

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear, -	1	10	0
Market expences, -	1	0	0
Cash in hand, -	30	0	0
	<u>£. 32</u>	<u>10</u>	<u>0</u>
Total of these articles, -	<u>£. 1048</u>	<u>0</u>	<u>0</u>

ANNUAL ACCOUNT.

<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c. -	210	0	0
150 Steers, -	750	0	0
Labour, -	27	10	0
Sundry articles, -	2	10	0
	<u>£. 990</u>	<u>0</u>	<u>0</u>

Produce.

150 Fat steers, at 8 <i>l.</i> -	1200	0	0
Expences, -	<u>990</u>	<u>0</u>	<u>0</u>
	210	0	0
Interest, -	52	8	0
Profit, -	<u>£. 157</u>	<u>12</u>	<u>0</u>

The capital pays 21 *l.* 4 *s.* per cent.; but I should remark, that the calculation of produce is very low: The increase of price should have been 3 *l.* 10 *s.* However, I let it pass, that the fewer objections may be made to the estimate. The gentleman's account will stand as follows:

Stock.

(37)

	<i>Stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	210	0	0
Live stock,	- - -	765	0	0
Implements,	- - -	13	0	0
Labour,	- £. 27	10	0	
27 per cent.	- - -	7	5	0
			34	15 0
Sundry articles,	- - -	32	10	0
			£. 1055	5 0

ANNUAL ACCOUNT.

	<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	210	0	0
150 Steers,	- - -	750	0	0
Labour,	- - -	34	15	0
Sundry articles,	- - -	2	10	0
			£. 997	5 0

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	- - -	1200	0	0
Expences,	- - -	997	5	0
			202	15 0
Interest,	- - -	52	15	0
			£. 150	0 0

The capital pays 19 *l.* 2 *s.* per cent. or within a trifle, as much as the farmer's. Every estimate I can form will prove the

vast superiority of grass land to arable for gentlemen; and at the same time prove, that farming grazing farms is a most profitable business for them, in which they can make as good interest of their money, and with fewer chances against them, than in any other trade.

N^o 6.

Variation the fifth.

One hundred and fifty acres, the soil clay or loam arable, and laid down to grass.

I shall suppose this farm unsown with any grain by the preceding tenant at the desire of the new one, that he may get the whole laid as soon as possible: ten acres of it I suppose old grass.

Stock, &c.

Rent, &c. *l. s. d.*

Rent of 150 acres, at 17 s. - 127 10 0

Tythe, at 4 s. - 25 10 0

Rates, &c. at 4 s. - 25 10 0

£. 178 10 0

Live stock.

Four horses, - £. 60 0 0

Implements.

Two carts, - 20 0 0

Harness, - 6 0 0

Carry over, - £. 26 0 0

Two

Brought over,	£. 26	0	0
Two ploughs,	3	3	0
Harrow and rollers,	4	0	0
Sundry small articles,	5	0	0
	£. 38	3	0

Seed and Tillage.

Four earths on 35 acres,	28	0	0
Seed for 35 acres of spring-corn,	17	10	0
Sowing,	0	8	9
Water-furrowing,	1	15	0
Harrowing,	1	15	0
Grass-seeds,	35	0	0
Sowing,	1	15	0
Rolling,	0	4	0
	£. 86	7	9

Labour.

Six earths on 105 acres of fallow,	31	10	0
Mowing, making, carting, and stacking 5 acres of hay,	2	0	0
Mowing and harvesting 35 acres of spring-corn, at 4 s.	7	0	0
Thrashing, 4 qrs. per acre, 140 qrs. at 1 s.	7	0	0
Carrying out 27 acres of barley, 108 qrs. 12 at a time, 9 jour- neys,	0	18	0
Sundry small articles,	4	0	0
	£. 52	8	0

(40)

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear, -	4	0	0
First year's expence, - - -	<u>£. 419</u>	8	9

<i>Second year.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c. - - -	178	10	0
Seed, spring-corn for 105 acres, -	52	10	0
Ditto, grafs-seeds, - - -	105	0	0
5 Cows, - - -	25	0	0
	<u>£. 361</u>	0	0

<i>Labour.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Mowing, making, and stacking 35 acres of hay, - - -	15	0	0
Ploughing 105 acres thrice, -	15	15	0
Sowing, - - -	1	6	3
Ditto grafs-seeds - - -	5	5	0
Harrowing, - - -	1	6	3
Rolling, - - -	0	8	0
Water-furrowing, - - -	5	5	0
Mowing and harvesting, at 4 s. -	21	0	0
Thrashing, 4 qrs. per acre, 420 qrs. at 1 s. - - -	21	0	0
Carrying out 97 acres of barley, 4 qrs. per acre, 388 qrs. -	12	3	6
12 qrs. at a time, 33 journies, -	5	0	0
Sundries, - - -	<u>£. 94</u>	11	6

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear, -	8	0	0
Second year's expence, -	<u>£. 463</u>	11	6

Third

(41)

<i>Third year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	178	10	0
97 Home-bred heifers,	- - -	108	0	0
<i>Labour.</i>				

Mowing, making, and stacking,				
&c. 105 acres of hay,	-	45	0	0
Sundry small articles,	-	5	0	0
Shoeing, and wear and tear,	-	5	0	0
Market expences,	-	1	10	0
Third year's expence,	-	£. 343	0	0

<i>Fourth year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	178	10	0
150 Steers,	- - -	750	0	0
<i>Labour.</i>				

Mowing, making, and stacking				
one acre of hay,	-	0	7	0
100 Perches of ditching, and				
carting the earth,	-	15	0	0
Sundries,	-	3	0	0

<i>Sundry articles.</i>				
A small three-wheeled cart,	-	7	0	0
Shoeing, and wear and tear,	-	1	10	0
Market expences,	-	2	10	0
		£. 957	17	0

<i>Produce.</i>				
<i>First year.</i>				
108 Qrs. of barley, at 16 s.		£. 86	8	0

Second

<i>Second year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
388 Qrs. of barley, at 16 s.	-	310	0	0
35 Tons of hay, at 2 l.	-	70	0	0
5 Cows,	-	25	0	0
		<u>£. 405</u>	0	0

<i>Third year.</i>				
27 Fat heifers, at 7 l.	-	189	0	0
105 Tons of hay,	-	210	0	0
5 Cows,	-	25	0	0
Sale of 3 horses, 2 carts, and imple- ments of tillage, which cost 80 l.		35	0	0
		<u>£. 459</u>	0	0

GENERAL ACCOUNT.

Expence of first year,	-	419	8	9
Interest,	-	20	19	0
Expence of second year,	-	463	11	6
Interest,	-	44	2	0
Expence of third year,	-	343	0	0
Interest,	-	61	5	0
Expence of fourth year,	-	957	17	0
		<u>£. 2310</u>	3	3

Produce of the first year,	-	86	8	0
— of the second,	-	405	0	0
— of the third,	-	459	0	0
		<u>£. 950</u>	8	0

Total expence,	-	2310	3	3
— Produce,	-	950	8	0
Total necessary to stock this farm,	-	<u>£. 1359</u>	15	3

ANNUAL

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Those of the fourth year,	-	957	17	0
<i>Produce.</i>				
150 Steers,	- - -	1200	0	0
Expences,	-	957	17	0
		242	3	0
Interest,	- - -	67	19	0
Profit,	- - -	£. 174	4	0

The capital pays 17 *l.* 16 *s.* *per cent.* which is a good profit; and although not so considerable as the produce of a farm already in grass, yet it is much greater than that of most arable ones. The gentleman's account of this farm is as follows:

<i>Stock, &c.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The first year's expence, labour excepted,	- - -	367	0	9
Labour,	- £. 52	8	0	
27 <i>per cent.</i> ,	- 14	0	0	
		66	8	0
The expence of second year, except the labour,	-	369	0	0
Labour,	- £. 94	11	6	
27 <i>per cent.</i> ,	- 25	7	0	
		119	18	6
Carry over,	£. 922	7	3	
Expence				

Brought over,	£. 922	7	3
Expence of third year, besides labour,	-	-	293 0 0
Labour,	£. 50	0	0
27 per cent.	-	13	10 0
			<u>63 10 0</u>
Expence of fourth year, besides labour,	-	-	939 10 0
Labour,	£. 18	7	0
27 per cent.	-	4	17 0
			<u>23 4 0</u>
	£. 2241	11	3
First year,	-	-	433 8 9
Interest,	-	-	21 13 0
Second year,	-	-	488 18 6
Interest,	-	-	46 1 0
Third year,	-	-	356 10 0
Interest,	-	-	63 17 0
Fourth year,	-	-	962 14 0
	£. 2373	2	3

Produce.

Of the first, second, and third year as before,	-	£. 950	8 0
Total expence,	-	2373	2 3
Produce,	-	950	8 0
Total stock,	-	£. 1422	14 3

ANNUAL

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Those of the fourth year,	-	962	14	0
<i>Produce.</i>				
The same,	-	1200	0	0
Expences,	-	962	14	0
		237	6	0
Interest,	-	71	2	0
Profit,	-	£. 166	4	0

The produce is 16*l.* 13*s.* *per cent.* on the capital, which, to a gentleman, is not inconsiderable, and proves, upon the whole, that, with such a sum of money, it is more advantageous to hire an arable farm and lay it down to grafs, (when a grafs one is not to be had) than to take an arable one for common management.

N^o 7.*Variation the sixth.*

One hundred and fifty acres arable, the soil light enough for turnips, and marled, chalked, or clayed.

As much the greatest part, *viz.* 140 acres, is arable, I call it an arable farm; the ten acres near the house are grafs for convenience. I suppose the whole improved the first year; and consequently, that nothing is sown by the preceding tenant: The
marle

marle, chalk, or clay, (for no distinction is in common to be made between them in point of expence) to be dug in pits out of which a cart can drive, and not like the chalk pits in Hertfordshire, wells for drawing it up in buckets. The soil of the farm I shall suppose a light dry loam, worth about 7 s. 6 d. per acre inclosed, without improvement, such being as common as any that is ever improved in this way.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
150 acres, at 7 s. 6 d. -	56	5	0
Tythe, at 4 s. -	11	4	0
Rates, &c. at 4 s. -	11	4	0
	<u>£. 78</u>	<u>13</u>	<u>0</u>

Live stock.

4 Horses, - - -	<u>£. 60</u>	<u>0</u>	<u>0</u>
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Implements.

One waggon, - - -	25	0	0
Two carts, - - -	24	0	0
Harnes, - - -	6	0	0
Two ploughs, - - -	3	3	0
Harrows, and rollers, - -	4	0	0
Sacks, - - -	3	0	0
Sundry small articles, -	5	10	0
	<u>£. 70</u>	<u>13</u>	<u>0</u>

Tillage.

Three earths on 35 acres, -	<u>£. 21</u>	<u>0</u>	<u>0</u>
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Labour.

<i>Labour.</i>		<i>l. s. d.</i>
Four earths on 140 acres, -	28	0 0
Mowing and making, &c. five acres of hay, -	2	0 0
Sundry articles of work, -	5	0 0
	<u>£. 35</u>	<u>0 0</u>

Sundry articles.

Marling, claying, or chalking 140 acres, at the rate of 100 loads <i>per</i> acre, at 4 <i>l.</i> <i>per</i> acre, including the filling, driving, spreading, horses, carts, &c.	560	0 0
36 Quarters of oats, -	23	8 0
Straw cut into chaff, -	2	10 0
Shoeing, and wear and tear, -	5	0 0
Cash in hand, -	30	0 0
	<u>£. 620</u>	<u>18 0</u>

Total of these articles, £. 886 4 0

Second year.

Rent, &c. -	£. 78	13 0
20 Cows, -	£. 100	0 0
35 Heifers or steers, at 6 <i>l.</i> 10 <i>s.</i>	£. 127	10 0
3 Sows, -	£. 3	0 0
Seed for 35 acres of wheat, 35 of spring-corn, 35 of clover, and 35 of turnips, -	£. 42	17 6

Labour.

	Labour.	l.	s.	d.
1 Earth on 35 acres of wheat land,		15	0	0
Sowing,		0	17	6
Water-furrowing,		0	8	9
Reaping and harvesting, at 6 s.		10	10	0
Thrashing the crop, $4\frac{1}{2}$ qrs. per acre, (or two years fallow,) $157\frac{1}{2}$ qrs. at 2 s.		15	15	0
Carrying out 10 qrs. at a time 16 journeys,		1	12	0
Three earths on 35 acres of spring-corn land,		5	5	0
Sowing,		0	8	9
Ditto clover,		0	8	9
Water-furrowing,		0	5	0
Mowing and harvesting, at 4 s.		7	0	0
Thrashing the crop, 4 qrs. per acre, 140 qrs. at 1 s.		7	0	0
Carrying out 104 acres of barley, 12 at a time; 8 journeys,		0	16	0
Mowing and making, &c. 10 acres grass, and 10 of clover, into hay,		8	0	0
Four earths on 35 acres of turnips,		7	0	0
Sowing,		0	8	9
Hand-hoeing twice, at 7 s.		12	5	0
Drawing and carting home, at 7 s. 6 d.		13	2	6
Carry over,	£.	92	18	0
Chopping				

Brought over,	£. 92	18	0
Chopping, raking, and carting 35 acres of stubble, -	4	7	6
Ditching 150 perches, at 9 d. -	5	12	6
Carting 500 loads of marle, chalk, or clay, (out of a pit) into farm- yard, 20 loads <i>per</i> day, 2½ d. <i>per</i> load filling, and 1 s. 3 d. driving, 25 days, at 5 s. 5 d.	6	15	5
Mixing 500 loads of marle with 1140 of dung, 1640 in all, at 1 d.	6	16	8
Carting ditto on to land, 3 s. <i>per</i> score, and 1 s. 3 d. driving, 4 s. 3 d. <i>per</i> day, 82 days, -	17	8	6
Cutting 300 bushels of chaff,	0	12	6
Sundry small articles, - -	6	0	0
	£. 140	11	1

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear, -	15	0	0
Market expences, - -	3	0	0
40 loads of straw, - -	30	0	0
	£. 48	0	0

Total of these articles, £.	540	11	7
First year, - - -	886	4	0
Interest of ditto, - - -	44	6	0
Total necessary to stock this farm, - - -	£. 1471	1	7

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d</i>
Rent, &c.	- - -	78	13	0
35 Heifers,	- - -	227	10	0
Seed,	- - -	42	17	6
Labour, as before,	- - -	140	11	1
Sundry articles,	- - -	48	0	0
		<u>£. 537 11 7</u>		

<i>Produce.</i>				
35 Acres of wheat, $3\frac{1}{2}$ qrs. per				
acre, $122\frac{1}{2}$ qrs. at 2 l.	-	245	0	0
26 Acres of barley, 4 qrs. per				
acre, 104 qrs. at 16 s.	-	83	4	0
20 Cows,	- - -	100	0	0
35 Heifers or steers fat,	- - -	350	0	0
		<u>£. 778 4 0</u>		
Expences,	- - -	537	11	7
		<u>240 12 5</u>		
Interest,	- - -	78	11	0
Profit,		<u>£. 162 1 5</u>		

The capital pays 15 l. 15 s. per cent.

I apprehend the reader will not imagine I have over-rated the product of this farm, because the rent is small: The great expence of the marling should be considered; and as that manure agrees prodigiously with light hazelly loams, I am confident such crops as I have stated are not above the truth.

truth. I suppose the turnips to pay 3 *l.* 10 *s.* *per* acre, which they ought to do; for the expence on them is great, in drawing and feeding cattle in a yard. The turnip is a vegetable that thrives prodigiously in light loams marled. The gentleman's account of this farm is as follows : -

	<i>Stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	78	13	0
Live stock,	- - -	60	0	0
Implements,	- - -	70	13	0
Tillage,	- - -	21	0	0
Labour, - -	£. 35	0	0	
27 <i>per</i> cent.	- - -	9	9	0
		44	9	0

Sundry articles, including marling, &c. 560 <i>l.</i>	- -	620	18	0
Suppose 350 <i>l.</i> of it to be labour,				
27 <i>per</i> cent. on that will be		94	16	0
		715	8	0
Total,	£. 990	3	0	

Second year.

Rent, &c.	- - -	78	13	0
20 Cows, 35 helpers, and 3 sows,		330	10	0
Seed,	- - -	42	17	6
Labour, - -	£. 140	11	1	
27 <i>per</i> cent.	- - -	37	16	0
		178	7	1
Carry over,	£. 630	7	7	
E 2		Sundry		

Brought over,	£. 630	7	7
Sundry articles,	-	-	48 0 0
	£. 678	7	7
First year,	-	-	990 3 0
Interest on ditto,	-	-	49 10 0
Total necessary to stock this			
farm,	-	-	£. 1718 0 7

ANNUAL ACCOUNT.

	Expences.	l.	s.	d.
Rent, &c.	- - -	78	13	0
35 Heifers,	- - -	227	10	0
Seed,	- - -	42	17	6
Labour,	- - -	178	7	1
Sundries,	- - -	48	0	0
		£. 575	7	7

	Produce.			
The same,	- - -	778	4	0
Expences,	- - -	575	7	7
		202	16	5
Interest,	- - -	85	18	0
Profit,	- - -	£. 116	18	5

The capital pays 11 l. 16 s. per cent.

This farm pays the gentleman extremely well; but I should remind him, that all these arable farms are, to him, open to numerous objections, which cannot be reduced to calculation; for which reason he is always

to

to be very cautious how he engages in an *extensive* arable business, before he has gained experience in *small*.

N^o 8.*Variation the seventh.*

Eighty acres, all arable, soil clay or loam, cultivated upon improved principles.

Stock.	l.	s.	d.
Rent, &c. as in N ^o 1. -	100	16	0
Implements, as before, - -	36	1	6
Add a waggon, - - -	25	0	0
Harnes (cart) for one horse, -	2	0	0
	<u>£. 163</u>	<u>17</u>	<u>6</u>

Live Stock.

Four horses, - - -	60	0	0
20 Cows, - - -	100	0	0
3 Sows, - - -	3	0	0
	<u>£. 163</u>	<u>0</u>	<u>0</u>

Seed and tillage.

Four earths on 20 acres of wheat land, - - -	16	0	0
Seed, - - -	12	0	0
Sowing, - - -	0	10	0
Water-furrowing, - - -	1	0	0
Two earths on 15 acres of barley land, - - -	6	0	0
Seed, - - -	7	10	0
Carry over, - - -	<u>£. 43</u>	<u>0</u>	<u>0</u>
E 3			Sowing,

(54)

Brought over,	£. 43	0	0
Sowing,	-	0	3 9
Water-furrowing,	-	0	7 6
One earth on 5 acres of oat land,	1	0	0
Seed,	-	2	10 0
Sowing,	-	0	1 3
Water-furrowing,	-	0	2 6
Seed for 5 acres of clover, and fowing,	-	1	1 3
Seed for $7\frac{1}{2}$ acres of cabbages, 1 lb. to 5 acres,	-	1	4 0
	£.	49	10 3

Labour.

Five earths on $7\frac{1}{2}$ acres of cab- bage-land,	-	1	17 6
Digging the seed-bed, and sowing,	-	0	3 0
Planting, at 5 s.	-	1	17 6
Four horse-hoeings, at 6 d.	-	0	15 0
Two hand-hoeings, at 8 s.	-	3	0 0
Cutting the cabbage, and carting home, at 5 s.	-	1	17 6
Five earths on $27\frac{1}{2}$ acres of fallow,	-	6	17 6
Weeding 20 acres of wheat,	-	1	0 0
Reaping and harvesting, at 6 s.	-	6	0 0
Thrashing the crop, $2\frac{1}{2}$ qrs. per acre, at 2 s.	-	5	0 0
Mowing and harvesting 20 acres spring-corn land, at 4 s.	-	4	0 0
Carry over,	£.	32	8 0
Thrashing			

Brought over,	£. 32 8 0
Thrashing the crop, 4 qrs. <i>per</i>	
acre, at 1 s. - -	4 0 0
Chopping and raking 20 acres	
of wheat-stubble, at 1 s. 6 d.	1 10 0
Carting ditto to the farm-yard,	0 9 0
Mowing and making 2 acres of	
clover-hay twice, - -	0 16 0
Carting ditto home, -	0 16 0
Ditching 130 perches, - -	6 10 0
Carting the earth of ditto, 390	
loads, 12 loads <i>per</i> day, 33	
days, 3 men, - -	4 19 0
Carting dung and earth out of	
farm-yard, 90 loads, of each	
180, filling and spreading, 3 s.	
<i>per</i> score, - - -	1 7 0
Driving away 15 loads <i>per</i> day,	0 12 0
Turning over dung in yard with	
an equal quantity of ditch-	
earth thrice, - -	1 5 0
Carting faggots home, - -	0 2 0
Hollow-ditching the 20 acres of	
fallow designed for lucerne,	
32 inches deep, 4 inches wide	
at bottom, and 18 at top:	
digging, filling up, materials,	
Carry over,	£. 54 14 0
E 4 carting,	

Brought over,	£. 54	14	0
carting, &c. &c. at 9 <i>d.</i> <i>per</i>			
perch, and 1600	-	-	60 0 0
Sundry articles of work,	-	-	4 0 0
			<u>118 14 0</u>
27 <i>per cent.</i>	-	-	31 10 0
			<u>£. 150 4 0</u>
Shoeing, and wear and tear,	£. 7	0	0
Total,	-	-	<u>£. 652 5 9</u>

The general design of the first year upon this farm is, to bring it into order for the intended husbandry: $7\frac{1}{2}$ acres of cabbages are planted for a winter provision (with straw) for twenty cows; and those who are acquainted with the cabbage culture will agree, that this is a very simple allowance. Having thus provided for the winter, I suppose the twenty cows bought in October or November, as then they can be procured to the best advantage; in those months they are cheaper than in any other. The lucerne being drilled in April following, will be ready for them (at the rate of one cow *per* acre for the first year), by the time the cabbages are done, which will be the end of May. It is the business of the second year to provide for, and complete the whole stock. There are many variations in these accounts, and too numerous for as
many

many explanations. As to the cabbage culture, the prices are charged such as I have experienced them, and I am very confident not under the truth.

The soil of this farm, like the preceding, I suppose in proportion to the rent, that is, sound good clay or loam, naturally so, or improved by former draining; but I, notwithstanding, allow a new draining to the 20 acres of lucerne, as that vegetable delights in clay more than in any other soil, if it is perfectly dry; for which reason I increase the drains if it was done before, or new-drain it if not, that the field may be certain at all events of lying perfectly dry: And I charge it with 80 perches to every acre. I suppose also five acres of the preceding farmer's clover to stand another year.

This first year's state of the farm is,

20 Acres of wheat.

20 Ditto of spring-corn.

5 Ditto of clover.

1½ Ditto of cabbages.

27½ Ditto of fallow.

Produce of the first year. l. s. d.

20 Acres of wheat, - - - 80 0 0

15 Ditto of barley, - - - 45 0 0

£. 125 0 0

Account

*Account of the second year.**Expences.*

Rent, &c.	-	-	£. 100	16	0
20 Cows,	-	-	£. 100	0	0
3 Sows,	-	-	£. 3	0	0
Seed for $12\frac{1}{2}$ acres of wheat,			£. 7	10	0
Ditto for 20 acres of spring-corn,			£. 10	0	0
Ditto for 5 acres of clover,	-	-	£. 1	0	0
Ditto for 15 acres of cabbages,			£. 2	8	0
Ditto for 20 acres of lucerne,			£. 6	0	0
Sundry articles,	-	-	£. 7	0	0

Labour.

One earth on $12\frac{1}{2}$ acres of wheat	l.	s.	d.
Land,	-	-	0 12 6
Sowing,	-	-	0 6 3
Harrowing 5 acres,	-	-	0 1 3
Water-furrowing,	-	-	0 12 6
Weeding,	-	-	0 12 6
Reaping and harvesting, at 6 s.	3	15	0
Thrashing,	-	-	3 2 6
Three earths on 20 acres of			
spring-corn,	-	-	3 0 0
Sowing,	-	-	0 5 0
Harrowing,	-	-	0 5 0
Water-furrowing,	-	-	0 10 0
Mowing and harvesting, at 4 s.	4	0	0
Thrashing,	-	-	4 0 0
Carry over,	£. 21	2	6
Sowing,			

Brought over, £.		21	2	6
Sowing 5 acres of clover, -	-	0	1	3
Mowing and making 2 acres twice, -	-	0	16	0
Carting, -	-	0	16	0
Chopping and raking 12 $\frac{1}{2}$ acres of stubble, -	-	0	18	9
Carting, -	-	0	6	0
Ditching and carting, as before, -	-	11	9	0
Ditto dung out of yard, 150 loads, filling, spreading, dri- ving, and turning over, -	-	4	12	7
Carting home faggots, -	-	0	2	0
Sundry small articles of work, -	-	4	0	0
Two earths on 20 acres lucerne land, -	-	2	0	0
Three harrowings, -	-	0	5	0
Drilling : This is a difficult point to settle ; to drill 20 acres by hand would cost more than a drill-plough, and that purchase for one single job is going dear- ly to work : I shall therefore Suppose one bought for £. 8 0 0 And when the lucerne is sown, re-fold for -				
		4	0	0
Labour-drilling, -	-	0	10	0
Carry over, £.		50	19	1
				Hand-

(60)

Brought over,	£. 50 19 1
Hand-hoeing 4 times, at 6 s.	24 0 0
Cutting 3 times, at 1 s. 6 d.	4 10 0
Raking together, loading, and carting home, at 1 s. 6 d.	4 10 0
Five earths on 15 acres of cab- bage land,	3 15 0
Digging the seed-bed, sowing, &c.	0 6 0
Planting, at 5 s.	3 15 0
Four horse-hoeings, at 6 d.	1 10 0
Two hand-hoeings, at 8 s.	6 0 0
Cutting and carting, at 5 s.	3 15 0
	103 0 1
27 per cent.	27 5 0
	130 5 1
Total,	£. 367 19 1

<i>Produce.</i>			<i>l.</i>	<i>s.</i>	<i>d.</i>
20 Cows,	-	-	100	0	0
12½ Acres of wheat,	-	-	50	0	0
15 Ditto of barley,	-	-	45	0	0
			£. 195	0	0
Expences,	-	-	367	19	1
Produce,	-	-	195	0	0
			172	19	1
Interest of stock,	-	-	44	14	0
Loss,	-	-	£. 217	13	1

Account

*Account of the third year.**Expences.*

Rent, &c. - £. 100 16 0

Seed for 20 acres of wheat, £. 12 0 0

Ditto for 20 acres of spring-corn, £. 10 0 0

Ditto for 5 acres of clover, - £. 1 0 0

Ditto for 15 acres of cabbages, £. 2 8 0

Labour.

One earth on 5 acres of clover
land wheat, - 1 5 0

Three earths on 15 acres of
stubble land, - 2 5 0

Sowing, - 0 10 0

Harrowing, - 0 1 3

Water-furrowing, - 1 0 0

Weeding, - 1 0 0

Reaping, harvesting, thrashing,
and carrying out, - 12 12 0

Three earths for 20 acres of
spring-corn, - 3 0 0

Sowing, - 0 5 0

Harrowing, - 0 5 0

Water-furrowing, - 0 10 0

Mowing, harvesting, thrashing,
and carrying out the barley, 8 9 0

Carry over, £. 30 2 3

Sowing

Brought over,	£. 30	2	3
Sowing 5 acres of clover,	-	0	1 3
Labour on 15 acres of cabbages,			
as before,	-	19	1 0
Hand-hoeing the lucerne twice,			
at 6 s.	-	12	0 0
Horse-hoeing it four times, twice			
equal to ploughing an acre,		2	0 0
Mowing, raking, loading, and			
driving away five times, at 3 s.	15	0	0
Mowing and making 2 acres of			
clover, and carting,	-	1	12 0
Chopping and carting stubble,		2	0 0
Ditching 130 perches,	-	6	10 0
The quantity of earth out of these			
ditches will be 400 loads, to			
be carted into farm-yard, (I			
here calculate for 4 horses,) 400			
at 20 per day are 20 days, at			
3 d. per load filling, and 1 s. 3 d.			
driving, 6 s. 3 d. per day,	-	6	5 0
The 43 head of cattle will, if they			
have plenty of straw, make 12			
loads of dung per day, which			
quantity I shall suppose, (as some			
straw is to be bought to supply			
the deficiency of the crops) that			
Carry over, £. 94	11	6	
			is,

Brought over,	£. 94 11 6
is, 516 loads: These are to be mixed up with 400 loads of earth, in all 916 loads, at 1 d. -	3 16 0
Filling and spreading 916 loads,	
3 s. per score or day; and	
1 s. 3 d. per day driving, or	
4 s. 3 d. 46 days, - -	9 15 6
Carting faggots, - -	0 2 0
Sundry small articles of work,	5 0 0
	<u>113 5 0</u>
27 per cent. - - -	29 11 0
	<u>£. 142 16 0</u>

<i>Sundry articles.</i>	<i>l. s. d.</i>
Shoeing, - - -	2 8 0
Wear and tear, - - -	6 0 0
Thirty loads of straw, - -	20 0 0
	<u>28 8 0</u>
15 Heifers or small beasts, at 5 l.	75 0 0
20 Home-bred heifers, at 3 l.	60 0 0
	<u>135 0 0</u>
Total,	<u>£. 433 8 0</u>

<i>Produce.</i>	
40 Cows, - - -	200 0 0
20 Heifers fat, - - -	100 0 0
15 Beasts ditto, - - -	105 0 0
20 Acres of wheat, 3 qrs. per acre,	
60 qrs. at 2 l. - - -	120 0 0
	<u>525 0 0</u>
Carry over,	£. 525 0 0
	15 Acres

Brought over,	£. 525	0	0
15 Acres of barley, $4\frac{1}{2}$ qrs. <i>per</i>			
acre, $67\frac{1}{2}$ qrs. at 16 s.	-	54	0
		0	0
	£. 579	0	0
Expences,	-	433	8
		0	0
		146	12
Interest,	-	56	13
		0	0
	£. 89	19	0

There are several explanations requisite here.

I suppose the 20 acres of lucerne to feed two cows *per* acre, and fat a heifer besides.

I further suppose the 15 acres of cabbages, with the assistance of the straw, to winter-feed 40 cows, and fat 15 beasts, to the improvement of 2 *l.* each.

These 35 acres yield therefore a produce (with the assistance of the straw) of 270 *l.* or near 8 *l.* *per* acre. The reader, before he condemns the calculation as *outré*, must reflect. First, That the annual expence of these crops is immense. And,

Secondly, That the 15 acres of cabbage-land are manured every year with above 60 loads *per* acre, of compost, half ditch-earth and half dung.

Now, if the produce was less than 8 *l.* this year, these crops would not be worth cultivating.

I have increased the stock proportionally to the improvement of the lucerne, which is not so good the first and second year as afterwards.

The corn-crops are much greater than upon former farms of this size, and I think with very good reason; the manuring 15 acres of cabbages, goes over the whole farm in four years. If this is considered, the crops will appear small rather than great: And this, notwithstanding wheat and barley are not separated, which is not in common good husbandry; but so large a stock of cattle required much straw, and for that reason I allowed it.

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l. s. d.</i>
As before,	433	8 0
Add 15 more beasts,	75	0 0
Ditto 20 ditto heifers,	60	0 0
	<u>£. 568</u>	<u>18 0</u>

<i>Produce.</i>		
As before,	579	0 0
15 Fat beasts,	105	0 0
20 Ditto heifers,	100	0 0
	<u>£. 784</u>	<u>0 0</u>

Produce,	£. 784 0 0
Expences,	568 8 0
19 per cent. on capital,	216 12 0
Interest of stock,	56 13 0
Profit,	£. 159 19 0

GENERAL ACCOUNT.

First stock,	652 5 9
Product of the first year below the expence of the second,	242 19 1
Product of the second year below the expence of the succeeding ones,	238 8 0
	£. 1133 12 10

Which sum is requisite to stock this farm.
It appears from this calculation, that gentlemen may farm upon equal terms with farmers, and, under all their disadvantages, make even a larger profit.

I suppose the cows to yield 5 £. after all expences paid except food. There are great numbers of objections to gentlemens having large dairies; but it matters little whether the lucerne is applied to feeding cows or fatting heifers, and the cabbages to fatten oxen. Those crops may undoubtedly be made to pay as well or better than I have stated. I instanced cows, as I believe

lieve the profit of both those vegetables to be greater in feeding that animal than any other: And as the profit of the swine are included in the 5 l. allowances may certainly be made for the gentleman's disadvantages. The clover will keep the young hogs till they are of a proper size to drive to market.

N^o 9.

Variation the eight.

One hundred and fifty acres arable, the soil clay or loam, cultivated on improved principles.

Ten acres I suppose to be grass by the house, for convenience, the rest arable and cultivated under the following course; 1. Cabbages; 2. Barley; 3. Clover; 4. Wheat; which is, for an improved course, I think, as profitable a one as can be practised on a clay soil.

Stock.

Rent, &c.

l. s. d.

Rent of 150 acres, at 18 s.

135 0 0

Tythe, at 4 s.

27 0 0

Rates, &c. at 4 s.

27 0 0

£. 189 0 0

F 2

Implements.

Implements.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
One waggon,	25	0	0
Two carts,	20	0	0
Harness for 6 horses,	10	0	0
Three ploughs,	4	14	6
Harrows and rollers,	4	0	0
Sacks,	4	10	0
Sundry small articles including dairy-furniture,	20	0	0
	<u>£. 88</u>	<u>4</u>	<u>6</u>

*Stock.**Live Stock.*

	<i>l.</i>	<i>s.</i>	<i>d.</i>
6 Horses,	90	0	0
30 Cows,	150	0	0
4 Sows,	5	0	0
100 Beasts,	500	0	0
	<u>£. 745</u>	<u>0</u>	<u>0</u>

Seed and tillage.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Four earths on 35 acres of wheat,	28	0	0
Seed,	17	10	0
Sowing,	0	17	0
Water-furrowing,	1	15	0
Two earths on 35 acres of spring- corn,	14	0	0
Seed,	17	10	0
Carry over,	<u>£. 79</u>	<u>12</u>	<u>0</u>
Sowing,			

Brought over,	£. 79	12	0
Sowing,	-	0	8 9
Water-furrowing,	-	0	17 6
Seed clover,	-	7	0 0
Sowing,	-	0	8 9
Harrowing,	-	1	15 0
One earth on 35 acres fallow,	-	7	0 0
Water-furrowing,	-	0	17 6
		<u>£. 97</u>	<u>19 6</u>

<i>Labour.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
One earth on 35 acres of wheat,	1	15	0
Sowing,	-	0	8 9
Water-furrowing,	-	1	15 0
Weeding,	-	1	15 0
Reaping and harvesting, at 6 s.	10	10	0
Thrashing the crop, 3 qrs. per			
acre, 105 qrs. at 2 s.	10	10	0
Carrying out 10 qrs. at a time,			
10 journeys,	1	0	0
Three earths on 35 acres of spring-			
corn,	5	5	0
Sowing,	-	0	8 9
Water-furrowing,	-	0	17 6
Sowing clover,	-	0	8 9
Harrowing,	-	0	8 9
Mowing and harvesting, at 4 s.	7	0	0
Carry over,	£. 42	2	6
F 3			Thrashing

(70)

Brought over,	£. 42	2	6
Thrashing the crop, 4 qrs. per			
acre, 140 qrs. at 1 s.	-	7	0 0
Carrying out 22 acres of barley,			
88 qrs. 12 at a time, 7 journeys,	0	14	0 2
Four earths on 35 acres of cabbages,	7	0	0 1
Digging the seed-bed, seed and			
sowing,	-	6	10 0
Planting, at 5 s.	-	8	15 0
Four horse-hoeings, at 6 d.	-	3	10 0
Two hand-hoeings, at 8 s.	-	14	0 0
Cutting and carting, at 5 s.	-	8	15 0
Mowing and making, carting			
and stacking 10 acres of grass,			
and 5 of clover,	-	5	5 0
Chopping and raking and cart-			
ing 35 acres of wheat stubble,	4	10	0 0
Ditching 200 perches,	-	10	0 0
Carting the earth, 600 loads, to			
farm-yard, 3d. per load filling,			
and 1 s. 3 d. per day driving,			
30 days, at 6 s. 3 d.	-	9	7 6
136 Head of cattle, at 12 loads			
each, and 1630 loads, in all			
2230 loads, mixing, at 1 d.	9	5	10
Carry over,	£. 136	14	10
Carting			

Brought over,	£.	136	14	10
Carting 2230 loads on to land,				
and spreading, 3 s. per score				
or day, and 1 s. 3 d. driving				
111 days, 4 l. 3 d.		23	12	0
Carting faggots,				
Sundry small articles of work,				
to the amount of a boy at 6 d.				
per day, - - -		9	0	0
Cutting 400 bushels of chaff,		0	16	8
		170	8	6
27 per cent. - - -		45	18	0
	£.	216	6	6

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear,	25	0	0
Market expences, - - -	3	0	0
50 Loads of straw, - - -	40	0	0
Cash in hand, - - -	50	0	0
	<u>£. 118</u>	0	0
Total of these articles, -	£. 1454	10	6

<i>Produce of the first year.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
85 Acres of wheat, 105 qrs. at 2l.	210	0	0
22 Ditto of barley, 88 qrs. at 16 s.	70	8	0
30 Cows,	150	0	0
100 Fat beasts,	750	0	0
	£.	1180	8 0

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	189	0	0
100 Beasts,	- - -	500	10	0
Seed for 35 acres of wheat, 35 of spring-corn, 35 of clover, and 35 of cabbages,	- - -	47	12	0
Labour,	- - -	216	6	6
Sundry articles,	- - -	68	0	0
		<u>£. 1020</u>	<u>18</u>	<u>6</u>

<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
35 Acres of wheat, $3\frac{1}{2}$ qrs. per acre, $122\frac{1}{2}$ qrs. at 2 <i>l.</i>	- - -	245	0	0
22 Acres of barley, $4\frac{1}{2}$ qrs. per acre, 99 qrs. at 16 <i>s.</i>	- - -	79	4	0
30 Cows,	- - -	150	0	0
100 Fat beasts,	- - -	775	0	0
		<u>£. 1249</u>	<u>4</u>	<u>0</u>
Expences,	- - -	1020	18	6
		<u>228</u>	<u>5</u>	<u>6</u>
Interest,	- - -	59	0	0
		<u>£. 169</u>	<u>5</u>	<u>6</u>

The capital pays 19 *l.* 6 *s.* per cent. and the farm is, upon the whole, a perfectly consistent and well-regulated one; and I think cannot (allowances being made for the gentleman's disadvantages in points not reducible

reducible to estimate) fail of proving to any one as advantageous as I have stated it: 19 *l.* *per cent.* after a deduction of 27, on all labour, is a noble profit, and such as a gentleman can never make, I am very confident, in any arable farm, managed upon common principles.

The cabbages and clover together, maintain upon this farm as large a stock of cattle as are kept on half a score such by common farmers; consequently, here is a vast concentration of manure, which must, in the round of two or three courses, fertilize the whole to such a degree, that the crops cannot fail of improving greatly, and the profit rising much higher than I have stated it. After two courses, I should calculate the wheat at $4\frac{1}{2}$ qrs. *per acre*; the spring-corn at $5\frac{1}{2}$; the clover to pay 6 *l.* *per acre*; and the cabbages 10 *l.* 10 *s.* Nor is this an extravagant supposition, for the 2230 loads of compost, raised every year, covers the 70 acres of cabbages and clover *every year*; which is so noble a manuring, that immense crops cannot well be missed.

And here I shall add a word or two concerning the purchase of straw: I have not

yet

yet had experience of any part of the kingdom in which this commodity is not to be purchased in large quantities: some there may be, in which a high price is requisite to procure it; perhaps a shilling or two more than the market-price formed by the old demand; for this reason I have, in the above farm, and in all the rest wherein I suppose straw to be purchased, charged so high a price for it, as I apprehend is sufficient to overturn the common practice. Thus much it is necessary to add, in answer to those who may think it difficult to procure straw. The point is of very great importance to the improvement of land, and the practice of a spirited husbandry; for I must be allowed to write to good farmers, under the supposition of their having bad ones for their neighbours. This idea is no strained one. But in case a neighbourhood is to be found inhabited by such excellent husbandmen that not a load is to be bought, my cultivator must take other means of raising manure, although they may be more difficult ones; nor will they, in many instances, occasion any considerable variation in these calculations, as the cash I have appropriated

appropriated for straw will, in many instances, answer the same end in a different manner. The two cases of buying straw or town-manure, however, will include nine-tenths of the kingdom.

N^o 10.

Variation the ninth.

One hundred and fifty acres arable, the soil light, and cultivated upon improved principles.

Ten acres, as in the last farm, I suppose grass near the house. The course this farm is to be thrown into is, 1. Carrots; 2. Barley; 3. Clover; 4. Wheat. No management can be better, that does not embrace perfection, than this course for light soils. When I say *light*, I do not mean necessarily sands, nor even sandy soils; but such as are light enough for turnips, and deep enough (without meeting a rock or stiff clay) to trench plough. It does not preclude an adhesive loam.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 150 acres, at 18 s.	135	0	0
Tythe, at 4 s.	27	0	0
Rates, &c. at 4 s.	27	0	0
	<u>£. 189</u>	<u>0</u>	<u>0</u>

Implements.

<i>Implements.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same as in last farm,	-	88	4	6

<i>Live stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Six horses,	- - -	90	0	0
30 Cows,	- - -	150	0	0
4 Sows,	- - -	5	0	0
100 Beasts,	- - -	500	0	0
		<u>£. 745</u>	0	0

<i>Seed and tillage.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Four earths on 35 acres of wheat,		28	0	0
Seed,	- - -	17	10	0
Sowing,	- - -	0	17	6
Water-furrowing,	- - -	0	17	6
Two earths on 35 acres of spring-corn land,	- - -	14	0	0
Seed,	- - -	17	10	0
Sowing	- - -	0	8	9
Water-furrowing,	- - -	0	8	9
Seed clover,	- - -	7	0	0
Sowing,	- - -	0	8	9
Harrowing,	- - -	1	15	0
Seed for 35 acres of carrots, at 6s.		10	10	0
		<u>£. 99</u>	6	3

<i>Labour.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Labour, as before, on 35 acres of wheat,	- - -	27	13	9
Ditto on spring-corn,	- - -	22	2	9
		<u>£. 49</u>	16	6
Carry over,				One

Brought over,	£. 49	16	6
One earth on 35 acres of carrot land, trench ploughed, with 6 horses, half an acre <i>per</i> day, 4 men, 8 s. <i>per</i> acre,	-	14	0
Sowing,	-	1	5
Harrowing,	-	0	8
Hand-hoeing, at 3 l.	105	0	0
Digging up,	35	0	0
Carting home, at 5 s.	8	15	0
Mowing, making, carting, and stacking 10 acres of grafs, and of clover,	-	5	5
Chopping, &c. &c. 35 acres of stubble,	-	4	10
Labour on ditching, mixing, carting, and recarting, as be- fore,	-	52	5
Carting faggots,	-	0	5
Cutting chaff,	-	0	16
Sundries,	-	9	0
		286	17
27 per cent.	-	77	15
		£. 364	12

Sundry articles.

The same as in the last farm,	£. 118	0	0
Total,	£. 1605	3	0
			ANNUAL

ANNUAL ACCOUNT. *l. s. d.*

Rent, &c.	189	0	0
100 Beasts;	500	0	0
Seed,	52	10	0
Labour,	365	12	3
Sundry articles,	68	0	0
	<u>£. 1175</u>	<u>2</u>	<u>3</u>

Produce *l. s. d.*

35 Acres of wheat, as in last farm,	245	0	0
22 Acres of barley, 5 qrs. per acre, 120 qrs. at 16 s.	96	0	0
30 Cows,	150	0	0
100 Beasts, at 9 l.	900	0	0
	<u>1391</u>	<u>0</u>	<u>0</u>
Expences,	<u>1175</u>	<u>2</u>	<u>3</u>
	215	17	9
Interest,	80	5	0
Profit,	<u>£. 135</u>	<u>12</u>	<u>9</u>

The capital pays 13 l. 9 s. per cent.
which is a considerable profit; but would
be much greater, were it not for the vast
amount of the labour on the carrots.

RECAPITULATION OF THIS CHAPTER.

Stocks requisite for the preceding farms.

N ^o I. 220 acres; 220 arable and 20 grass; the foil clay or loam, cultivated with 8 horses,	<i>l. s. d.</i>
1257	14 6
Ditto a gentleman,	1312 9 0
I	N ^o II.

N^o II. The same cultivated with 6 horses, - 1092 0 4

Ditto a gentleman, - 1148 9 4

N^o III. 170 Acres; 160 arable, and 10 grass; the soil light enough for turnips, - 1286 15 11

Ditto a gentleman, - 1329 13 11

N^o IV. 210 Acres; one third grass, and two thirds arable; the soil clay and light foam, - 1325 9 5

Ditto a gentleman, - 1362 19 5

N^o V. 150 Acres, all grass, 1048 0 0

Ditto a gentleman, - 1055 5 0

N^o VI. 150 Acres; 140 arable and 10 grass; the former laid down to grass, - 1359 15 3

Ditto a gentleman, - 1422 14 3

N^o VII. 150 Acres; 140 arable, and 10 grass; the soil light enough for turnips, and marled, chalked, or clayed, - 1571 1 7

Ditto a gentleman, - 1718 0 7

N^o VIII. 80 Acres arable, upon improved principles, cabbages and lucerne, - 1133 12 10

N^o IX. 150 Acres; 140 arable, and 10 grass; the soil

clay,

clay or loam, and cultivated
on improved principles, cab-
bages in a course, 1454 10 6

N^o X. 150 Acres; 140
arable, and 10 grass; the soil
light, cultivated on improved
principles, carrots in a course, 1605 3 0

Annual produce of these farms, expences paid.

N ^o I.	-	-	£. 139	0	6
	Ditto the gentleman,	-	84	6	0
N ^o II.	-	-	155	17	2
	Ditto the gentleman,	-	103	4	2
N ^o III.	-	-	176	8	6
	Ditto the gentleman,	-	133	10	7
N ^o IV.	-	-	203	13	10
	Ditto the gentleman,	-	165	3	10
N ^o V.	-	-	210	0	0
	Ditto the gentleman,	-	202	15	0
N ^o VI.	-	-	242	3	0
	Ditto the gentleman,	-	237	6	0
N ^o VII.	-	-	240	12	5
	Ditto the gentleman,	-	202	16	5
N ^o VIII. Ditto,	-	-	216	12	0
N ^o IX. Ditto,	-	-	228	5	6
N ^o X. Ditto,	-	-	215	17	9

Profit

Profit per cent. on these farms.

N ^o I.	- - -	£. 11	1	0
	Ditto the gentleman,	6	7	0
N ^o II.	- - -	14	5	0
	Ditto the gentleman,	9	0	0
N ^o III.	- - -	13	13	0
	Ditto the gentleman,	10	0	0
N ^o IV.	- - -	15	7	0
	Ditto the gentleman,	12	2	0
N ^o V.	- - -	21	4	0
	Ditto the gentleman,	19	2	0
N ^o VI.	- - -	17	16	0
	Ditto the gentleman,	16	13	0
N ^o VII.	- - -	15	15	0
	Ditto the gentleman,	11	16	0
N ^o VIII.	Ditto, - -	19	0	0
N ^o IX.	Ditto, - -	19	6	0
N ^o X.	Ditto, - -	13	9	0

*Comparison between the gentleman and the
farmer in their profits per cent. in
these farms.*

		l.	s.	d.
N ^o I.	The farmer, -	11	1	0
	The gentleman, - -	6	7	0
	Superiority of the former,	£. 4	14	0
N ^o II.	The farmer, -	14	5	0
	The gentleman, -	9	0	0
	Superiority of the former,	£. 5	5	0
VOL. II.	G			N ^o III.

N ^o III. The farmer, -	13	13	0
The gentleman, -	10	10	0
Superiority of the former,	£. 3	13	0
N ^o IV. The farmer, -	15	7	0
The gentleman, -	12	2	0
Superiority of the former,	£. 3	5	0
N ^o V. The farmer, -	21	4	0
The gentleman, -	19	2	0
Superiority of the former,	£. 2	2	0
N ^o VI. The farmer, -	17	16	0
The gentleman, -	16	13	0
Superiority of the former,	£. 1	3	0
N ^o VII. The farmer, -	15	15	0
The gentleman, -	11	16	0
Superiority of the former,	£. 3	19	0

*The progression of the farmer's farms in
order of profit per cent.*

N ^o 5. -	£. 21	4	0
6. -	17	16	0
7. -	15	15	0
4. -	15	7	0
2. -	14	5	0
3. -	13	13	0
1. -	11	11	0

The

The progression of the gentleman's.

N ^o 9.	-	-	£. 19	6	0
5.	-	-	19	2	0
8.	-	-	19	0	0
6.	-	-	16	13	0
10.	-	-	13	9	0
4.	-	-	12	2	0
7.	-	-	11	16	0
3.	-	-	10	0	0
2.	-	-	9	0	0
1.	-	-	6	7	0

Upon these several tables I must make a few observations, to elucidate the subject of them, and draw them into as concise a view as possible.

The most profitable farm to the common farmer is that which is all grass: 21 l. 4 s. per cent. is a noble profit on a business which requires but little, or at least but a periodical attention, which is liable to few disasters, dependent but little on the seasons, and conducted with so much ease, that the occupier may be said to grow rich while he sits in his chimney-corner. It is, with these great advantages, much superior to all the arable farms, notwithstanding their being carried on with endless

attention, and open to a multiplicity of evils.

The next beneficial farm is that laid down to grass, and which ranking second, is a fresh proof of the vast profit of grass-farms; for such a one is found superior to all the arable ones, under the expence of being laid at the farmer's cost.

His third farm in profit is that improved with marle, chalk, or clay, which pays 15 *l.* 15 *s.* *per cent.*: From whence it is observable, that to expend large sums of money upon poor lands, is often more advantageous, than to hire such as are improved to his hand.

The fourth in rank is that consisting of one third grass and two thirds arable, which is nearly upon a par in profit with the last. This management is advantageous, and much superior to all, or near all, of a farm being arable.

The next farm is that which is all clay arable, except 20 acres, and cultivated with six horses: It pays 14 *l.* 5 *s.* *per cent.* which is but a moderate profit compared with many others.

The

The sixth is the arable farm, the soil light enough for turnips; It is nearly on a par with the preceding one.

The last is the clay arable, cultivated with 8 horses, which pays only 11 *l.* 1 *s.* *per cent.*

Upon the whole, the superiority of grass is striking in each article. Suppose two men to occupy one, N^o 5. and the other N^o 1. the first goes into business with a capital of 1048 *l.* which yields him an annual produce, all expences but that of interest paid, of 210 *l.* and makes a profit of above 21 *per cent.* The other begins with a capital of 1257 *l.* or 200 *l.* more than his brother, from which he annually receives but 139 *l.* and gains a profit of only 11 *per cent.* or very little more than half the other's. So much depends on a man's judgment in fixing himself in a farm. We here find that it is not sufficient to get money; a man must understand the principles of his business to keep it; for, with above 1200 *l.* in his pocket, another may soon outstrip him, that possesses only 1000 *l.* It is an heavy misfortune for a man to exert his industry, and bestow his

attention, upon a business which *cannot* make him the returns he ought to receive. With what care and penetration should he view the farm that is offered him? How clearly should he calculate the probable expences, produce, and profit of it, that he may know, before he engages, what he has reason to expect. Let him not, on such an occasion, forget, that with 1000 l. he may, in one kind of farm, make double the profit that he can with above 1200 l. in another.

The table of the progression of the gentleman's profit also affords matter for reflection, which should not be slighted. In all common farms he is inferior to the common farmer; in the calculation this inferiority is confined to the article of labour, which, in many farms, particularly arable ones, amounts to a vast difference; and as those other points of comparative disadvantage under which gentlemen lie abound most in the same, they render such farms very precarious; the more labour implies the more arable land; and consequently, the more complex business, to which a gentleman can scarcely give the farmer's

farmer's attention. If a crop of wheat, for instance, be traced its progress through a farm, it is curious to observe how many situations it will be in, wherein its gentleman master depends on the honesty of the hands through which it passes. *First*, It is bought at market, at which bargain there is an opening at least. *Secondly*, It is brought home, and will, in its journey, suffer considerable diminution, if the men are accustomed to shoot it into the heap in the granary without the master's *seeing* it measured. *Thirdly*, It is put into the hands of the fellows to salt, wash, or brine; an excellent opportunity of making free with the corn, and supplying its place with salt, ashes, lime, &c. If it is only washed, the practice of some countries, then the men may steal half of it in the field; a precious opportunity! My gentleman will not be the first farmer that has found a sack of wheat in one of his ditches, buried up with twigs and leaves. *Fourthly*, It is reaped, and in many counties where gleanings is much in practice, and with that impudence that is in some, the sheaves of corn will chiefly add to the bundles of the gleaners.

Fifthly comes the thrashing, in which I will venture to pronounce, that a gentleman, who gives not the most circumspect attention to the very *minutiae* of his business, will be cheated to the amount perhaps of 5 or 6, or even 10 *per cent.* of his whole crop. It is a fact known in many parts of England, that many workmen scarce ever thrash in the same cloaths they do their other business; they have coats with pockets, in the lining, that will hold each half a peck: But besides this piece of knavery, there are likewise the methods of filling bags, and burying them in the straw, or in any convenient place near the barn, and bringing them away in the night or other convenient time. *Sixthly*, It is measured; I need but mention this article. *Seventhly*, It is carried to the granary, from thence loaded into the waggon, and drove to market, or the person's that has bought it; and the gentleman may depend on it, that unless he sees it measured, sacked, and loaded according to his bargain, his heap may suffer a fresh deduction; for it is a very easy matter to throw up a sack too much, and no difficult one to drop it at a labourer's house, or convert it into money.

Let

Let not the reader imagine, that I have strained facts or probability, to make room for these deductions; nor have I wantonly attacked a set of people with imputations of dishonesty, nor to be found amongst them. The manner in which the poor are brought up, the objects constantly before their eyes, the nature of their situation, in a word, every thing conspires to give them a suffering turn, which degenerates too often into such practices as I have sketched. In one instance their dishonesty is notorious in every county in England, which is their stealing wood; from a long habit of abuse, they are arrived at the pass of considering this as no theft; and yet I cannot conceive any mode of reasoning which can throw into different lights the taking a neighbour's wood, or his corn, against his consent. The one, even in their ideas, must surely be considered as his property, as well as the other; but so strong is the justness of this view of the case, that it affects even the country people; for they presently come to view corn and wood with the *same* eye, and make *equally* free with both.

I appeal

I appeal to all real *practical* husbandmen, whether they are not obliged, from the necessity of the case, to have a most watchful eye to their wheat, &c. &c. &c. under all the circumstances I stated above.

I have digressed into this instance only as one in many wherein corn-farms are open to peculiar disadvantages to gentlemen: And I may from hence conclude once more, as I have often done before, that we must consider such farms under more deductions than that of 27 *per cent.* on the labour, although that is the only one we can reduce to calculation. The great point to be deduced from these remarks is, that such deductions, not reducible to estimate, lie always on the same farms with that of the 27 *per cent.* when highest; or, in other words, on those farms which employ most labour. I am speaking here only of common husbandry; consequently, in the comparison between the farms, the contrast is in reality vastly stronger than it there appears, and is a very powerful argument against common arable farms for gentlemen. They were found much the most beneficial to common farmers; how much more so must they be to gentlemen?

In

In N^o 2. 27 *per cent.* on labour alone, makes a difference of 5 *l.* 5 *s.* 10 *per cent.* between the gentleman and farmer in profit; or, in other words, the farmer, on comparison with the gentleman, saves more than the interest of his capital in one article.

But, on the contrary, in the grass-farm, and that laid down to grass, the difference between them is only 1 *l.* 3 *s.* and 2 *l.* 2 *s.* *per cent.*; so that, on the plan of calculation before adhered to, it is in these farms alone that the gentleman nearly equals the common farmer; and this appearance of equality is, *in reality*, almost as real as it appears to be; such farms not being open to those complicated objections I have so often explained, but cannot calculate.

If we throw our eye over the progressive table of the gentleman's profit *per cent.* we see at once the farms which are to him most advantageous. The most profitable is that on a clay soil, in which cabbages are introduced in a common course: This farm pays, 9 *l.* 6 *s.* *per cent.* after the deduction of 27 *per cent.* on all the labour of it. This is a striking proof, that gentlemen, if they would make any thing of farming, or nearly
ly

by rival the common farmer, must cultivate
grais alone, or pursue a more spirited and
accurate management of arable land than
even performed by common farmers; as to
their creeping on in that vulgar course under
a million of disadvantages, without half
the advantages naturally annexed to it, the
conduct cannot possibly be attended with
any thing but utter loss, and to small for-
tunes utter ruin. The culture of cabbages
here sketched is peculiarly valuable; for it
enables the clay farmers to keep as great
flocks of cattle as the turnip ones, and
even greater, which is a most valuable ac-
quisition to husbandry, perhaps the most
valuable that has been made in this age:
a peculiar benefit respecting it in favour of
gentlemen, is the simplifying their busi-
ness, by reducing their buying and selling
to a small compass; for this culture may
be so managed, by keeping cows, sheep, or
young cattle, that all the cabbages, clover,
straw, and hay of a farm, may be sold in
one bargain, which is no trifling point.
What a prodigious difference between such
a conduct and that of bad farmers, who
raise their clover for hay to sell, and carry
out,

out, and for seed; who sow pease, beans, or oats, &c. instead of cabbages; and who sell and carry out their straw? What a complex, tedious, expensive business is one? How clear and simple is the other?

The next farm in point of profit to a gentleman is that which is all grass. Too much has already been said upon the advantages of such, for the case to require expatiating on here.

The third in profit is that of cabbages and lucerne, (these three nearly upon an equality,) which I think can, with good management, scarcely fail of success, even superior to what I have supposed. But with farms conducted upon such spirited principles as these, if a gentleman, with 1100 l. in his pocket, (the sum requisite to stock this farm) instead of confining his attention to 80 acres, thinks he has money enough for 200; and when he has stocked such a farm, conceives the idea of cultivating it upon such a plan, he will find himself most miserably disappointed. That very culture which, with a proper sum in his pocket, would turn out highly advantageous, may go near to prove the ruin of a
man

man of small fortune, from the original want of 2 or 300 l. Vegetables of this nature may indubitably be carried to a vast profit, but it is impossible to be done without great expence; and any abatement in that expence must be attended with vast deductions in the profit. Lucerne has been tried in almost every county in England, and has failed in more than it has succeeded: And why? Not from any fault or want of capability in the plant, but for want of culture. Writers of husbandry have, in treating of this plant, very justly expatiated on the necessity of keeping it entirely free from weeds; and, for a year or so, some gentlemen may have done it, but the novelty of the practice wearing off, their attention has declined, and the culture as surely come to nothing. No fact is clearer, than that gardeners cultivate onions to a certain size, and much advantage. Suppose a person, in imitating them, follows them only in the preparation of their ground and the spreading their seed, but leaves out the hoeing, the consequence certainly will be the total failure of the crop; whereby all the expence he *has* allowed, is thrown

thrown away. It is the same with lucerne, cabbages, or any of these vegetables that require a spirited and accurate culture; all the fallowing and manuring in the world will not do, if the succeeding culture is denied.

These vegetables feeding vast stocks of cattle, they will be cultivated to no profit, if the gentleman has not a sufficient sum of money to purchase all that is wanted. It is clear from the calculation of the farm, that if, with 1133 £ . he attempts this culture upon 100, acres instead of 80, that he will lose by it. This might be easily proved by figures; but it would take up too much room.

The fourth farm in the gentleman's list, is that laid down to grass, which, though it does not equal that already laid down in grass, yet is so profitable as to yield near 17 *per cent.* and is superior to all the rest, inasmuch that we may venture to decide, that such a farm is greatly superior for a gentleman, to any arable one commonly managed.

The fifth is that cultivated with carrots in a course, which pays 13 £ . 9 *s.* *per cent.* This profit, although considerable, is not,

I appre-

I apprehend, so high as many circumstances might carry it, and which I expect will hereafter appear in the same farms on larger scales. The reason why the profit *per cent.* on this farm is so much lower than that of cabbages in a course, is the great expence of the carrot-crop, which is the heaviest of any we have hitherto calculated. The reader may easily vary the account to suit any particular county, where the hoeing can be performed at a less chargeable rate; there are many such. About Woodbridge in Suffolk, where they are commonly cultivated, they are hoed thrice for 15 s.; but then the carrot-culture there has been in use time out of mind, and the work is done by the *great* at prices that have long been common and fixed, as hoeing turnips is in many counties. Wherever the culture is not common, no man will be able to get it done for any such price. It cost me in Suffolk 2 l. 10 s. and 3 l. The first hoeing was 1 l. 10 s. That no gentleman might be deceived in forming too flattering an idea, I have reckoned 3 l. *per* acre for hoeing: for that sum it may be done in a truly husband-like and accurate manner.

The

The sixth farm in the list is that one third of which is grass, and two thirds arable: it is the proportion of the grass that renders this more advantageous than others.

Next comes the arable farm improved with marle, chalk, or clay: it is not to be wondered at that the preceding ones should be more profitable than this, which is improved at so great an expence of labour, on which is a charge to the gentleman of 27 *per cent.*; but, improved or not improved, arable farms can, in no common management, equal grass ones to a gentleman.

The eighth farm is the arable one, the soil light enough for turnips, which pays 10 *per cent.*; but this, like others of the same sort, is by no means to be recommended to gentlemen. The ninth and tenth are the clay arable under different management; and the worst of all, the profit so small, that unspecified deductions would vastly more than swallow it up.

Farming, upon the whole of this view, appears, under a proper direction, to be extremely profitable to gentlemen; but it likewise appears, that if the money is expended

without a previous judgment, instead of being profitable, it will be attended with ruinous losses.

CHAP. XXIV.

Of the most advantageous method of disposing of any sum of money, from 1500 l. to 3000 l. in farming.

IN proportion as I advance in these inquiries, it becomes necessary to embrace a greater scope for including in each chapter a greater variety of farms; but it is necessary to repeat what I have elsewhere remarked, that the division I make of these calculations into chapters, is not for exactness or accuracy, but that the reader may not be so generally bewildered as he would be, if the substances of these volumes were thrown together without any division. It is for this reason a latitude is taken in each: It would be impossible to have the stock of each farm in a chapter exactly alike, without so much adding, reducing, and squaring, that the *real practical* proportions would be much injured.

Suppose a farmer possessed of 1642 l. and having viewed several farms, sits down

to calculate the profit he has reason to expect from them: in such a case, what is the use he is to make of these papers? Why, not to throw them aside, because no such sum as 1642 *l.* is to be found in them; for how is it to be expected, that every sum in the power of figures to form, should be proportioned here in the stock of every sort of farm? Instead of having such an idea, I suppose him to look over my table of chapters, and finding one that treated of sums from 1000 *l.* to 1600 *l.* he may easily imagine his case to be not far distant; and if he then throws an eye over the method I pursue in stating the stock of a farm which requires 16 or 1700 *l.* he will at once see the manner in which he should arrange his own ideas, and adapt his estimates to the land in question. I offer no *ipse dixits*; calculations cut and squared like tables of interest to suit all possible cases; I pretend to nothing but assisting the honest cultivator in his closet, not by giving him ideas, but by helping him to cultivate his own; and I flatter myself that this is reason sufficient for the latitude I take in my chapters.

N^o 1. *Four hundred and thirty acres of arable land, the soil clay or loam.*

This is called an *arable* farm, but the 30 acres are grass near the house, for convenience.

Stock.

Rent, &c.

Rent of 430 acres, at 15 s. - 322 10 0

Tythe, at 4 s. - 64 10 0

Rates, &c. at 4 s. - 64 10 0

£. 451 10 0

Live stock.

12 Horses, - 180 0 0

50 Cows, - 250 0 0

8 Sows, - 10 0 0

100 Sheep, - 60 0 0

£. 500 0 0

Implements.

A broad-wheeled waggon, - 70 0 0

Three narrow-wheeled ditto, - 75 0 0

Four carts, - 40 0 0

Two small three-wheeled ditto, - 14 0 0

Seven ploughs, - 11 0 6

Three pair of harrows, - 7 0 0

Three rollers, - 8 0 0

Carry over, - £. 225 0 6

£. 726 0 6

Harnes,

Brought over,	£. 225	0	6
Harnes,	30	0	0
80 Sacks,	12	0	0
Dairy furniture,	30	0	0
Screens, sieves, ropes, lines, &c.			
&c. &c.	20	0	0
	£. 317	10	6

Seed and Tillage.

Four earths on 100 acres of	£. 80	0	0
wheat-land,			
Seed,	50	0	0
Sowing,	12	10	0
Water-furrowing,	5	0	0
Three earths on 100 acres of			
spring-corn land,	60	0	0
Seed,	50	0	0
Sowing,	1	0	5
Water-furrowing,	2	10	0
Harrowing,	5	0	0
Seed clover,	20	0	0
Sowing,	1	0	5
Rolling,	1	0	10
Two earths on 100 acres of			
bean-land,	40	0	0
Seed,	40	0	0
Sowing,	5	0	0
Water-furrowing,	2	10	0
	£. 365	10	0

Labour.

One earth on 100 acres of wheat-land,	- - - - -	l. s. d.
Sowing,	- - - - -	5 0 0
Water-furrowing,	- - - - -	5 0 0
Harrowing,	- - - - -	1 5 0
Weeding,	- - - - -	5 0 0
Reaping and harvesting, at 6 s.	- - - - -	30 0 0
Thrashing, 3 qrs. per acre, 300 qrs. at 2 s.	- - - - -	30 0 0
Carrying out, 20 qrs. at a time, 15 journeys,	- - - - -	1 10 0
Three earths on 100 acres of barley and oat land,	- - - - -	15 0 0
Sowing,	- - - - -	1 5 0
Ditto clover,	- - - - -	1 5 0
Harrowing,	- - - - -	1 5 0
Water-furrowing,	- - - - -	5 0 0
Rolling,	- - - - -	0 5 0
Mowing and harvesting, at 4 s.	- - - - -	20 0 0
Thrashing, 4 qrs. per acre, 400 qrs. at 1 s.	- - - - -	20 0 0
Carrying out 80 acres barley, 320 qrs. 30 at a time; 10 journeys,	- - - - -	1 0 0
Three earths on 100 acres of bean-land,	- - - - -	15 0 0
Carry over,	£. 159	0 0
Sowing,		

Brought over,	£. 159	0	0
Sowing,	5	10	0
Water-furrowing,	2	10	0
Hand-hoeing once, at 6 s.	30	10	0
Horse-hoeing 3 times, at 6 d.	7	10	0
Reaping and harveſting, at 7 s.	35	0	0
Thrashing, 3 qrs. per acre, 300			
qrs. at 1 s.	15	0	0
Carrying out, 20 qrs. at a time,			
15 journeys,	1	10	0
Chopping and raking 100 acres			
of ſtubble, at 1 s. 6 d.	7	10	0
Carting home, three waggons,			
and 5 men, 6 days,	1	10	0
Ditching 400 perches,	20	0	0
Carting 1200 loads of earth, 30			
per day, 40 days; 3 d. per			
load filling, and 2 s. 6 d.			
driving, 10 s. per day,	20	0	0
62 Head of cattle, at 12 loads,			
744 loads mixing with 756 of			
the above earth, in all 1500			
loads, at 1 d.	6	5	0
Carting 1500 loads, and ſpread-			
ing, at 3 s. per ſcore, and			
2 s. 6 d. driving, at 7 s. per			
day, 50 days,	17	10	0
Carry over,	£. 328	5	0
H 4			
Mowing,			

Brought over,	£. 328	5	0
Mowing, making, and cocking			
30 acres of grafs once, and 10			
of clover twice,	10	10	0
Carting ditto, and stacking, 10			
days, of 7 men,	4	7	6
Thatching,	0	15	0
Cutting chaff,	1	13	4
Carting faggots,	0	10	0
Sundry labour concerning the			
horses, the sheep, the swine,			
and other articles not specified,			
to the amount of a labourer			
a year,	24	0	0
Ditto unspecified articles, a boy			
a year,	9	0	0
	£. 378	10	10

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing,	7	4	0
Wear and tear,	50	0	0
Market expences,	5	0	0
Cash in hand,	100	0	0
	£. 162	4	0
Total of these articles,	£. 2175	15	4

In this account there are variations from all the preceding, and I think not unnecessarily. However, I have already employed so many pages in explanations, that I shall be in future the more sparing of them.

ANNUAL

ANNUAL ACCOUNT.

Expences.

Rent, &c. 45 10 0

100 Sheep, 60 0 0

Seed for 100 acres of wheat, 100

of barley and oats, 100 of

clover, and 100 of beans, 160 0 0

Labour, 378 10 10

Sundry articles, 62 4 0

£. 1112 4 10*Produce.*

100 Acres of wheat, 300 qrs. l. s. d.

at 2 l. 600 0 0

80 Of barley, 320 qrs. at 16 s. 256 0 0

100 Of beans, 300 qrs. at 32 s. 480 0 0

50 Cows, 250 0 0

100 Sheep, 120 0 0

£. 1706 0 0*Expences,* 1112 4 10593 15 2

Interest, 108 16 0

£. 484 19 2

The capital pays 27 l. 6 s. This is very

considerable profit, and yet I do not apprehend

the product charged too high. The

addition of 100 sheep is on account of the

breadth

breadth of land; it would be contrary to reason and fact to adhere to an exact progression under similar circumstances; because no sheep were formerly thrown in, is not a reason for not allowing them here. So large a farm as 400 acres may be proportionably stocked with great cattle, and yet, from its size, afford food for a certain number of sheep. The expences are run up as high, I think, in every article, as any one can calculate them. The gentleman's account of this farm is as follows:

	Stock.	l.	s.	d.
Rent, &c.	- -	451	10	0
Live stock,	- -	500	0	0
Implements,	- - -	317	0	6
Seed and tillage,	- -	365	10	0
Labour,	- £. 378 10 10			
27 per cent.	- 102 1 0			
		480	11	10
		2114	12	4
Sundry articles,	- - -	163	4	0
		£. 2276	16	4

ANNUAL ACCOUNT.

	Expences.	l.	s.	d.
Rent, &c.	- - -	451	10	0
Sheep,	- - -	60	0	0
Carry over,	£. 511 10 0			
				Seed,

Brought over,		£. 511	10	0
Seed,		160	0	8
Labour,		480	11	10
Sundries,		62	4	8
		£. 1214	5	10
Produce.		l.	s.	d.
The same,		1706	0	0
Expences,		1214	5	10
		491	14	2
Interest,		113	17	0
Profit,		£. 377	17	2

The capital pays 217. 12s. the largeness of which profit reminds me of the great number of disadvantages the gentleman is subject to in such a farm as this: They cannot be calculated, but are undoubtedly great. The reader certainly carries this circumstance in his mind.

N^o 2.

Variation the first.

Five hundred and thirty acres arable, the soil clay or loam.

8 The thirty acres I suppose, as in the last farm, to be grass, for convenience, near the house.

Stock.

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<i>Stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 530 acres, at 15 s. -	397	10	0
Tythe, at 4 s. - - - -	79	10	0
Rates, &c. at 4 s. - - -	79	10	0
	<u>£. 556</u>	<u>10</u>	<u>0</u>

<i>Live stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
16 Horses, - - - -	240	0	0
65 Cows, - - - -	325	0	0
9 Sows, - - - -	11	0	0
150 Sheep, - - - -	90	0	0
	<u>£. 666</u>	<u>0</u>	<u>0</u>

<i>Implements.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The same as before, - - -	317	0	6
Two more ploughs, - - -	3	3	0
Harness for 4 horses, - -	8	0	0
Additions to dairy-furniture, -	5	0	0
	<u>£. 333</u>	<u>3</u>	<u>6</u>

<i>Seed and Tillage.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
In the last farm, - - - -	365	10	0
Add a fourth, - - - -	91	7	6
	<u>£. 456</u>	<u>17</u>	<u>6</u>

<i>Labour.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
In last farm, except the attend- ance on cattle, - - - -	345	10	10
Add a fourth, - - - -	86	7	8
A man and boy, as before, -	33	0	0
	<u>£. 464</u>	<u>18</u>	<u>6</u>

Sundry

Sundry articles. l. s. d.

Shoeing, - - - 9 12 0

Wear and tear, - - - 60 0 0

Market expences, - - - 5 0 0

Cash in hand, - - - 100 0 0

174 12 0

Total, - - - £. 2652 1 6

ANNUAL ACCOUNT. *l. s. d.**Expences. - l. s. d.*

Rent, - - - 556 10 0

Sheep, - - - 90 0 0

Seed, - - - 200 0 0

Labour, - - - 464 18 6

Sundries, - - - 74 12 0

£. 1386 0 6*Produce. l. s. d.*

125 Acres of wheat, 375 qrs. l. s. d.

at 2 l. - - - 750 0 0

100 Acres of barley, 400 qrs.

at 16 s. - - - 320 0 0

125 Of beans, 375 qrs. at 1 l. 12 s. 600 0 0

65 Cows, - - - 325 0 0

150 Sheep, - - - 180 0 0

2175 0 0

Expences, - - - 1386 0 6

788 19 6

Interest, - - - 132 12 0

£. 656 7 6

The

The capital pays 29 $\frac{1}{2}$ per cent.

The gentleman's account as follows:

Stock.		l.	s.	d.
Rent,	- - -	556	10	0
Live stock,	- - -	666	0	0
Implements,	- - -	333	3	6
Seed and tillage,	- - -	456	17	6
Labour,	- - -	464	18	6
27 per cent.	- - -	125	11	0

	- - -	590	19	6
Sundries,	- - -	174	12	0
	- - -	<u>£. 2777</u>	<u>12</u>	<u>6</u>

ANNUAL ACCOUNT.

Expences.		l.	s.	d.
Rent,	- - -	556	10	0
Sheep,	- - -	90	0	0
Seed,	- - -	400	0	0
Labour,	- - -	590	9	6
	- - -	<u>£. 1436</u>	<u>19</u>	<u>6</u>
Sundries,	- - -	74	12	0
	- - -	<u>£. 1511</u>	<u>11</u>	<u>6</u>

Produce.		l.	s.	d.
The same,	- - -	2175	0	0
Expences,	- - -	1511	11	6
	- - -	<u>663</u>	<u>8</u>	<u>6</u>
Interest,	- - -	138	17	0
Profit,	- - -	<u>£. 524</u>	<u>11</u>	<u>6</u>

The

The capital pays 23 l. 18 s.; but this, like all arable farms to gentlemen, is subject to numerous inconveniencies and deductions not reducible to calculation. Few gentlemen would chuse to manage such a business as this, without the assistance of a bailey, whose board, washing, lodging, horse, &c. cannot be reckoned at less than 60 or 70 l. a year, besides what he may think proper to cheat his master of. However, as baileys are mere assistants to idleness, I shall never suppose them kept: I might, with as much propriety, suppose any other matter of ease or imagined convenience: all which a gentleman may, it is true, employ; but they never ought to be set down to the account of necessaries. I shall offer, before I conclude this work, some hints for the use of such gentlemen as are desirous of managing without baileys.

N^o 3.*Variation the second.*

Three hundred and fifty acres arable, the soil light enough for turnips.

Thirty acres of this farm I suppose grass near the house.

Stock.

<i>Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
<i>Rent, &c.</i>				
Rent of 350 acres, at 15 s.	-	262	10	0
Tythe, and rates, at 8 s.	-	105	0	0
		<u>£. 367</u>	<u>10</u>	<u>0</u>

<i>Live stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
12 Horses,	-	180	0	0
40 Cows,	-	200	0	0
6 Sows,	-	8	0	0
160 Steers or heifers,	-	800	0	0
80 Sheep,	-	48	0	0
		<u>£. 1236</u>	<u>0</u>	<u>0</u>

<i>Implements.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same as in N ^o 1.	-	317	0	6

<i>Seed and tillage.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Four earths on 80 acres of wheat-	-			
land,	-	64	0	0
Seed,	-	40	0	0
Sowing,	-	2	0	0
Water-furrowing,	-	2	0	0
Three earths on 80 acres of				
spring-corn,	-	48	0	0
Seed,	-	40	0	0
Clover ditto,	-	16	0	0
Harrowing,	-	4	0	0
Sowing,	-	2	0	0
Water-furrowing,	-	2	0	0
One earth on 80 acres fallow,	-	16	0	0
		<u>£. 236</u>	<u>0</u>	<u>0</u>

Labour.

Labour.

One earth on 80 acres of wheat-land.

land, 4 0 0

Sowing, 8 0 0

Harrowing, 10 0 0

Water-furrowing, 2 0 0

Weeding, 4 0 0

Reaping and harvesting, at 6 s. 24 0 0

Thrashing, 3½ qrs. per acre, 280 0 0

qrs. at 2 s. 28 0 0

Carrying out, 20 qrs. at a time, 14 0 0

14 journeys, 14 0 0

Three earths on 80 acres of

spring-corn land, 12 0 0

Sowing, 8 0 0

Harrowing, 10 0 0

Water-furrowing, 2 0 0

Mowing and harvesting, at 4 s. 16 0 0

Thrashing, 4½ qrs. per acre, 360 0 0

qrs. at 1 s. 18 0 0

Carrying out 252 qrs. 30 at a

time, 8 journeys, 16 0 0

Five earths on 80 acres of turnips, 20 0 0

Harrowing, 10 0 0

Sowing, 8 0 0

Hand-hoeing twice, at 7 s. 28 0 0

Carry over, £. 163 4 0

Vol. II. I Drawing,

163 4 0

Brought over, £. 165 4 0

Drawing the turnips, and casting

them home, at 7 s. 6 d. - 30 0 0

Chopping and raking 80 acres

of stubble, - - - - -

Carting ditto to farm-yard, 1717-1818 W

5 men, 5 days, - - -

Ditching 300 perches, 1750-1800

Carting 900 loads of earth to

farm-yard, 30 per day, 30 2 16 8712

days, at 10 s. & 12. 15. 0. 0

212 Head of cattle, at 12 loads

each, 2544 mixing with 900

earth, in all 3444 loads, at 14. 14. 70

Carting 3444 loads, 30 per day,

14 days, at 7 s. - - - 39 18 0

Mowing and making 30 acres of

grafs once, and 7 of clover

twice,

Carting and stacking 9 days

7 men,

Thatching, - - - - -

Cutting chaff, 1924

Carting faggots, - - - - - 80

Sundry articles of work about

cattle, &c. a man a year, 21 00

Ditto small articles unspecified, 9 0 0

£. 337 6

Sundry

The

((205))

Sundry articles	d.
Shoeing, 7 14 9	
Wear and tear, 50 0 0	
Market expences, 4 10 6	
Cash in hand, 100 0 0	
	<u>£. 161 14 5</u>
Total, 165 10 9	

ANNUAL ACCOUNT.

Expences.

Rent, 367 10 0	
160 Steers, 800 0 0	
80 Sheep, 48 0 0	
Seed, 128 0 0	
Labour, 337 6 1	
Sundries, 61 14 8	
	<u>£. 1742 10 1</u>

Produce.

80 Acres of wheat, 280 qrs. - l. 4 2	
at 2 l. 560 0 0	
252 Qrs. of barley, at 16 s. 201 12 0	
40 Cows, 200 0 0	
160 Fat beasts, at 7 l. 1120 0 0	
80 Sheep, 96 10 0	
	<u>£. 2172 12 0</u>

Expences, 1742 10 1	
	<u>435 1 1</u>
Interest, 132 15 0	
Profit, £. 302 6 11	

((116))

The capital pays 16 l. 7 s. per cent. The gentleman's account is as follows:

	Stock.	l.	s.	d.
Rent,	- - - - -	367	10	0
Live stock,	- - - - -	1236	0	0
Implements,	- - - - -	317	0	6
Seed and tillage,	- - - - -	236	0	0
Labour,	- - - - -	£. 337	6	1
27 per cent.	- - - - -	90	19	0
		428	5	1
Sundries,	- - - - -	161	14	0
		£. 2746	9	7

ANNUAL ACCOUNT.

	Expences.	l.	s.	d.
Rent,	- - - - -	367	10	0
160 Steers,	- - - - -	800	0	0
80 Sheep,	- - - - -	48	0	0
Seed,	- - - - -	128	0	0
Labour,	- - - - -	429	15	1
Sundries,	- - - - -	61	14	0
		£. 1834	9	1

	Produce.	l.	s.	d.
The same,	- - - - -	2177	12	0
Expences,	- - - - -	1834	9	1
		£. 343	2	11
Interest,	- - - - -	£. 137	7	0
Profit,	- - - - -	£. 205	15	11
		The		

The capital pays 12 l. 9 s. per cent.

N^o 4. *adquisit*

Variation the third.

Three hundred acres, the soil clay or loam;
one third grass, and two-thirds arable.

The 100 acres of grass in this farm I suppose to be meadow, or rich upland, worth 1 l. 5 s. per acre, and the arable I reckon at about 15 s.

<i>Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
<i>Rent, &c.</i>				
Rent of 300 acres, at 18 s.		270	0	0
Tythe and rates, at 8 s.	-	108	0	0
		<u>£. 378</u>	0	0

<i>Live stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
10 Horses,	-	150	0	0
50 Cows,	-	250	0	0
20 Steers,	-	140	0	0
50 Sheep,	-	30	0	0
5 Sows,	-	6	0	0
		<u>£. 576</u>	0	0

<i>Implements.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
A broad-wheeled waggon,	-	70	0	0
Three narrow-wheeled ditto,	-	75	0	0
Harness,	-	30	0	0
3 Carts,	-	30	0	0
		<u>£. 195</u>	0	0
Carry over,		195	0	0
I 3		6 Ploughs,		

Brought over,	£. 195	0	0
6 Ploughs,		9	9
3 Harrows,		7	0
3 Rollers, one for grass,		10	0
60 Sacks,		10	0
Screens, bushels, shovels, lines,			
forks, rakes, wheel-barrow,			
&c. &c. &c. &c.		20	0
Dairy furniture,		35	0

£. 280 9 0

Seed and tillage.

Four earths on 50 acres of	£. 4	0	0
wheat-land,		40	0
Seed,		25	0
Sowing,		1	5
Water-furrowing,		2	10
Three earths on 50 acres of			
spring-corn land,		30	0
Seed,		25	0
Sowing,		0	12
Clover-seed,		10	0
Sowing,		0	12
Harrowing,		1	0
Water-furrowing,		2	0
One earth on 50 acres of bean-land,		10	0

£. 150 0 0

Labour,

(819)

Labour.

One earth on 50 acres of wheat-land,	4 10 0
Sowing,	0 12 6
Harrowing,	0 12 6
Water-farrowing,	2 10 0
Weeding,	2 10 0
Reaping and harvesting, at 6 s.	15 0 0
Thrashing the crop, 3 qrs. per acre, 150 qrs. at 2 s.	15 0 0
Carrying out, 20 qrs. at a time, 8 journeys,	0 16 0
Three earths on 50 acres of barley and oat land,	7 10 0
Sowing,	0 12 6
Ditto the clover,	0 12 6
Harrowing,	0 12 6
Water-furrowing,	2 10 0
Rolling,	0 5 0
Mowing and harvesting, at 4 s.	10 0 0
Thrashing the crop, 4 1/2 qrs. per acre, 225 qrs. at 1 s.	11 5 0
Carrying out 30 acres of barley, 135 qrs. 30 at a time, 4 journeys,	0 8 0
Three earths on 50 acres of bean land,	7 10 0
Carry over,	£. 80 16 6
I 4	Sowing,

(129)

Brought over,	£. 80 16 6
Sowing,	4 10 0
Water-furrowing,	1 5 0
Hand-hoeing, at 6 s.	15 0 0
Horse-hoeing 3 times, at 6 d.	3 15 0
Reaping and harvesting, at 7 s.	17 10 0
Thrashing, 3 qrs. per acre, 150	7 10 0
qrs. at 1 s.	7 10 0
Carrying out, 20 qrs at a time,	0 10 0
8 journeys,	0 10 0
Chopping and raking 50 acres	3 15 0
of stubble,	3 15 0
Carting home, 5 men, 4 days,	1 0 0
Ditching 300 perches,	15 0 0
Carting 900 loads of earth to	15 0 0
farm-yard, 30 loads a day, 30	15 0 0
days, at 10 s.	15 0 0
60 Head of cattle at 12 loads	6 15 0
each, 720 loads mixing with	6 15 0
900, in all 1620, at 1 d.	6 15 0
Carting 1620 loads, 30 per day,	18 18 0
54 days, at 7 s.	18 18 0
Mowing, making, and cocking	8 15 0
35 acres of grass,	8 15 0
Carting ditto, and stacking, 7	3 1 3
days, of 7 men,	3 1 3
Thatching,	0 15 0
Cutting chaff,	1 13 4
Carry over,	£. 203 15 1
Carting	

Brought over,	£. 203	15	1
Carting faggots,	-	0	8 0
Sundry labour concerning the cattle, &c. a man a year,	-	24	0 0
Ditto unspecified articles; a boy,	-	9	0 0
	£. 237	3	1

Sundry articles.	l.	s.	d.
Shoeing,	-	7	4 0
Wear and tear,	-	40	0 0
Market expences,	-	5	0 0
40 Loads of straw,	-	30	0 0
Cash in hand,	-	100	0 0
	£. 182	4	0
Total,	£. 1803	16	1

ANNUAL ACCOUNT.

Expences.	l.	s.	d.
Rent, &c.	-	378	0 0
20 Steers,	-	140	0 0
50 Sheep,	-	30	0 0
Seed for 50 acres of wheat, 50 of barley and oats, 50 of beans, and 50 of clover,	-	80	0 0
Labour,	-	237	4 1
Sundry articles,	-	82	4 0
	£. 947	8	1

Produce.	
150 Qrs. of wheat,	300 0 0
135 Qrs. of barley, at 16 s.	108 0 0
Carry over,	£. 408 0 0
	150 Qrs.

Brought over,	£. 408	0	0
150 Qrs. of beans, at 32 s.	220	0	0
50 Cows,	250	0	0
50 Sheep,	60	0	0
20 Steers,	280	0	0

Expences,	£. 1238	0	0
	947	8	1

Interest,	200	11	4
	90	3	0

Profit,	200	8	1
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The capital pays 16 l. 1 s. per cent. The gentleman's account is as follows:

Stock.	£.	s.	d.
Rent, &c.	878	0	0
Live Stock,	576	0	0
Implements,	280	9	0
Seed and tillage,	150	0	0
Labour,	£. 237	4	1
27 per cent	68	10	0
	301	3	1
Sundry articles,	182	4	0
	£. 1867	16	1

ANNUAL ACCOUNT.	£.	s.	d.
Expences.	378	0	0

Rent, &c.	378	0	0
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20 Steers,	140	0	0
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50 Sheep,	30	0	0
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Carry over,	£. 548	0	0
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Seed,			
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Brought over,	£. 548. 6
Seed,	80. 6
Labour,	30. 3
Sundry articles,	82. 4
	£. 641. 9

Produced,	l. s. d.
The same,	428. 10
Expenses,	10. 12. 0
Interest,	22. 6. 0
Profit,	£. 135. 8. 0

The capital pays 12 l. 2 s. per cent.

but the reader is not to forget the disadvantages a gentleman labours under in such a farm, in points not reducible to estimate: He here appears greatly inferior to the common farmer. Let us, in the next place, state an account of the same farm under an improved culture, to discover if the gentleman cannot thereby equal or exceed him.

N^o 5. Variation the fourth.

Three hundred acres, the soil clay or loam; one third grass, and two thirds arable; cultivated on improved principles; cabbages in a course.

This variation is no more than substituting

tuting cabbages in the place of the beans;
but in its consequences this will be found
considerable.

	<i>Stock.</i>	<i>l. s. d.</i>
Rent, &c. as before,	-	378 0 0

	<i>Live Stock.</i>	
30 Horses,	-	150 0 0
20 Steers,	-	140 0 0
300 Cows,	-	500 0 0
80 Steers,	-	400 0 0
30 Sows,	-	13 0 0
60 Sheep,	-	36 0 0
		<u>£. 1239 0 0</u>

	<i>Implements.</i>	
The same as before,	-	£. 280 9 0

	<i>Seed and tillage.</i>	
The same as before,	-	£. 150 0 0

	<i>Labour.</i>	
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One earth on 50 acres of wheat-	<i>l. s. d.</i>
land,	2 10 0
Sowing,	0 12 6
Harrowing,	0 12 6
Water-furrowing,	2 10 0
Weeding,	2 10 0
Reaping, &c.	<u>15 0 0</u>

	<i>Carry over,</i>	<i>£. 23 15 0</i>
	<i>Threshing,</i>	

Brought over,	£. 23 15 0
Thrashing, 4 qrs. per acre, 200	
qrs. at 2 s.	20 0 0
Carrying out, 20 at a time,	
10 journeys,	1 0 0
Three earths on 50 acres of bar-	
ley and oat land,	7 10 0
Sowing,	0 12 6
Ditto the clover,	0 12 6
Harrowing,	0 12 6
Water-furrowing,	2 10 0
Rolling,	0 5 0
Mowing and harvesting, at 4 s.	10 0 0
Thrashing, 5 qrs. per acre, 250	
qrs. at 1 s.	12 10 0
Carrying out 32 acres of barley,	
160 qrs. 30 at a time, 5	
journeys,	0 10 0
Five earths on 50 acres of	
cabbage-land,	12 10 0
Digging the seed-bed, and sowing,	0 15 0
Planting, at 5 s.	12 10 0
Four horse-hoeings, at 6 d.	5 0 0
Two hand-hoeings, at 8 s.	20 0 0
Cutting and carting, at 5 s.	12 10 0
Chopping, raking, and carting	
50 acres of stubble,	4 15 0
Carry over,	£. 147 17 6
Ditching	

Brought over,	£. 147	17	6
Ditching 400 perches,	-	20	0
Carting 1200 loads of earth to farm-yard, 20 loads per day, 40 days, at 10 s.	-	20	0
190 Head of cattle at 12 loads, 2280 loads mixing with 1200, in all, 3480, at 1 d.	-	14	10
Carting 3480 loads, at 30 per day, 116 days, 7 s.	-	40	12
Mowing, making, and cocking 25 acres of grafs,	-	6	5
Carting ditto, 5 days, of 7 men,	-	2	3
Thatching,	-	0	15
Cutting chaff,	-	1	13
Carting faggots,	-	0	8
Sundry labour concerning the cattle,	-	24	0
Sundry small unspecified articles,	-	9	8
27 per cent.	-	287	4
	-	77	9
	£. 364	13	2
Sundry articles:	£. 5	d.	
Shoeing, and wear and tear,	-	47	4
Market expences,	-	5	0
50 loads of straw,	-	40	0
Cash in hand,	-	100	0
	£. 492	4	0
Total,	£. 2604	6	2
			ANNUAL

Rent,	378	0	0
30 Steers,	400	0	0
20 Ditto,	120	0	0
60 Sheep,	36	0	0
Seed for 50 acres of wheat, 50 of spring corn, 50 of clover, and 50 of cabbages,	68	0	0
Labour,	364	13	2
Sundries,	92	4	0
Produce.	1478	17	2
200 Qrs. of wheat,	400	0	0
160 Ditto of barley,	128	0	0
100 Cows,	500	0	0
80 Steers,	720	0	0
20 Ditto,	280	0	0
60 Sheep,	72	0	0
Expences,	1478	17	2
Interest,	130	4	0
Profit,	400	18	10

The capital pays 23 $\frac{1}{2}$ per cent.
which is very considerable on a farm that
is more advantageous to a gentleman than

one mostly applied to the culture of corn ;
only one third of this yields grain in a
year.

Some may perhaps think I have rated
the produce too high ; but if they consider
the largeness of the sum employed in stock-
ing it, and the vast quantity of cattle kept
by means of the cabbages, inasmuch that
3480 loads of manure are every year raised,
which are sufficient to cover 70 acres of
land, at the rate of 50 loads an acre ; if
this is for a moment reflected upon, I am
clear the product will sooner be thought
too *low* than too *high*. This proportioned
farm is, of all those containing more arable
than grass land, I believe, the most ad-
vantageous. The general sketch is,

- 100 Acres of grass.
- 50 Ditto of clover.
- 50 Ditto of cabbages.
- 40 *l.* worth of purchased straw, and that of
- 100 acres of corn, maintain
- 100 Cows.
- 20 Summer-fatted steers.
- 80 Winter ditto.
- 60 Sheep.

The

The yearly purchased cattle, *l. s. d.*

2 fell for *1072 10 0*

They cost, *576 0 0*

196 0 0

Product of 100 cows, *500 0 0*

Product of the above grass,

clover, cabbages, and straw, *996 0 0*

which is within a trifle of 5 *l.* per acre. Is not this proof sufficient, that the above calculation is *very* low? For, if 200 acres of land, with the assistance of so much straw, under such numerous and great expences, stocked at so large an expence, and manured so immensely, will not yield such a produce, it certainly will produce nothing.

Variations in the manner of stocking, in the method of feeding the cattle, and other particulars, may be made, according to the disposition of the farmer; but under any such variations, the sum I have stated for live-stock will be found necessary; and it matters not, to the use of these calculations, whether it be expended in the manner I have sketched.

I have explained the stocking of this farm, to shew, that in many of my estimates, wherein I may be thought to have

dealt in very large totals, the sums analyzed, and compared with the soil and expence, will shew that nothing is extravagantly rated. Many books have been published, that promise immense riches from the practice of agriculture, not from an even and incessant industry, but from the execution of flighty and impracticable ideas. Many hundreds *per cent.* profit have been talked of; but I am well convinced, that nature, in this country at least, requires art, industry, and unremitting attention in the cultivators of the earth, or she will not yield even *small* profits. Virgil was of the same opinion in the warmer clime of Italy.

— *Pater ipse colendi*

*Haud facilem esse viam voluit, primusque per artem
Movit agros, curis acuens mortalia corda.*

I know not any one of these estimates, wherein the profit is greater than is made in some other branches of business; and not more considerable than it really ought to be, in one that ingrosses all the time and attention of a man, however small his capital.

3. No 6.

No 6.

*Variation the fifth.**Four hundred acres, all grass.**Stock.*

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 400 acres, - -	400	0	0
Tythe, rates, &c. &c. &c. at 8 s. 160	160	0	0
	<u>£. 560</u>	0	0

Live stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Two horses, - - -	30	0	0
Four hundred steers, - -	2000	0	0
	<u>£. 2030</u>	0	0

Implements.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Two small three-wheeled carts, 14	14	0	0
Harnes, - - -	3	0	0
Sundry small articles, -	5	0	0
	<u>£. 22</u>	0	0

Labour.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
350 Perches of ditching, and carting, and spreading the earth, at 3 s. -	52	10	0
Sundry small articles, -	7	10	0
	<u>£. 60</u>	0	0

K 2

Sundry

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear,	3	0	0
Market expences,	1	0	0
Cash in hand,	80	0	0
	<u>£. 84</u>	<u>0</u>	<u>0</u>
Total,	<u>£. 2756</u>	<u>0</u>	<u>0</u>

ANNUAL ACCOUNT.

<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	560	2	0
400 Steers,	2000	0	0
Labour,	60	0	0
Sundries,	4	0	0
	<u>£. 2624</u>	<u>0</u>	<u>0</u>

<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
400 Steers, at 8 <i>l.</i> 5 <i>s.</i>	3300	0	0
Expences,	2624	0	0
	<u>676</u>	<u>0</u>	<u>0</u>
Interest,	137	16	0
	<u>£. 538</u>	<u>4</u>	<u>0</u>

The capital pays 24 *l.* 10 *s.* per cent.

The gentleman's account is as follows

<i>Stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	560	0	0
Live stock,	2030	0	0
Implements,	22	0	0

Carry over, £. 2612 0 0

Labour,

Brought over,	£. 2612	0	0
Labour, - - -	£. 60	0	0
27 per cent. - -	16	4	0
		76	4
Sundry articles, - - -	84	0	0
	£. 2772	0	4

ANNUAL ACCOUNT.

Expences.	l.	s.	d.
Rent, - - -	560	0	0
400 Steers, - - -	2000	0	0
Labour, - - -	76	4	0
Sundries, - - -	84	0	0
	£. 2640	4	0
Produce.	l.	s.	d.
The same, - - -	3300	0	0
Expences, - - -	2640	4	0
	660	0	0
Interest, - - -	138	12	0
Profit, - - -	521	8	0

The capital pays 23 l. 16 s. per cent. an advantage, where there are so few deductions reducible to calculation, too great to require expatiating upon.

N^o 7.

Variation the sixth.

Three hundred acres arable, laid down to grass.

This farm I call an arable one, like many

others, because it is chiefly so; but 20 acres I suppose to be grass, near the house, for convenience.

*Stock.**Rent, &c.*

300 Acres, at 15 s.	-	225	0	0
Rates, tythe, &c. &c. &c.		90	0	0
		<u>£. 315</u>	0	0

Live stock.

Eight horses,	-	120	0	0
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Implements.

One waggon,	-	25	0	0
Two carts,	-	20	0	0
Two small three-wheeled ditto,		14	0	0
Harness,	-	12	0	0
Four ploughs,	-	6	6	0
Harrows and rollers,	-	7	0	0
Sacks, and fundry small articles,		10	0	0
		<u>£. 94</u>	6	0

Seed and Tillage.

Four earths on 70 acres of wheat-land, but sown with spring-corn,	-	56	0	0
Seed for 70 acres of spring-corn,		35	0	0
Sowing,	-	8	17	6
Water-furrowing,	-	3	10	0
Carry over,		<u>£. 95</u>	7	6
			Grass-	

(185)

Brought over,	£. 95	7	6
Grass-seeds for 70 acres,	-	70	0 0
Sowing,	-	3	10 0
Rolling,	-	0	8 0
Harrowing,	-	0	17 6
	£.	170	3 0

Labour. *l. s. d.*

Six earths on 210 acres of fallow,	63	0	0
Mowing, making, carting, and stacking 10 acres of hay,	-	4	0 0
Mowing and harvesting 70 acres of spring-corn, at 4 s.	-	14	0 0
Threshing, 4 qrs. per acre, 280 qrs. at 1 s.	-	14	0 0
Carrying out 54 acres of barley, 216 qrs. 12 at a time, 18 journeys,	-	1	16 0
Sundry small articles,	-	10	0 0
	£.	106	16 0

Sundry articles.

Shoeing, and wear and tear,	£. 10	0	0
first year's expence,	-	£. 816	5 0

Second year.

Rent, &c.	-	£. 315	0 0
Spring-corn seed for 210 acres,	-	£. 105	0 0
Grass-seeds for ditto,	-	£. 210	0 0
10 Cows,	-	£. 50	0 0

K 4

Labour.

Labour.

Mowing, making, and cocking	£. 3. d.
70 acres of grass, -	17 10 0
Cutting and stacking, -	2 10 0
Thatching, - - - -	1 10 0
Cutting chaff, - - - -	1 5 0
Ploughing 210 acres thrice, -	31 10 0
Sowing, - - - -	2 12 6
Ditto grass-seeds, - - -	10 10 0
Harrowing, - - - -	2 12 6
Rolling, - - - -	0 16 0
Water-furrowing, - - -	10 10 0
Mowing and harvesting, at 4 s.	42 0 0
Thrashing, 4 qrs. per acre, 840	
qrs. at 1 s. - - - -	42 0 0
Carrying out 776 qrs. 12 at a	
time, 65 journeys, - - -	6 10 0
Sundry small articles, - -	10 0 0

£. 186 16 0

Sundry articles. l. s. d.

Shoeing, and wear and tear, -	10 0 0
Market expences, - - -	3 0 0

£. 13 0 0

Second year's expence, -	£. 879 6 0
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Third year.

Rent, &c. - - - -	£. 315 0 0
60 Home-bred heifers, - -	£. 240 0 0

Labour.

Labour.

Mowing, making, and cocking	<i>l.</i>	<i>s.</i>	<i>d.</i>
210 acres of hay, -	52	10	0
Carting and stacking, -	21	0	0
Thatching, -	3	0	0
Cutting chaff, -	1	5	0
Sundry articles, -	8	0	0
	<u>£. 85</u>	<u>15</u>	<u>0</u>

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear, -	7	0	0
Market expences, -	2	0	0
	<u>£. 9</u>	<u>0</u>	<u>0</u>

Third year's expence, - £. 649 15 0

Fourth year.

Rent, &c. -	<u>£. 315</u>	<u>0</u>	<u>0</u>
300 Heifers or steers, -	<u>£. 1500</u>	<u>0</u>	<u>0</u>

Labour.

Mowing, making, and stacking	<i>l.</i>	<i>s.</i>	<i>d.</i>
5 acres of hay, -	1	15	0
200 Perches of ditching and carting, and spreading the earth, at 3 s. -	30	0	0
Sundries, -	5	0	0
	<u>£. 36</u>	<u>15</u>	<u>0</u>

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear, -	2	0	0
Market expences, -	2	0	0
Cash in hand, -	80	0	0
	<u>£. 84</u>	<u>0</u>	<u>0</u>

Fourth year's expences, - £. 1935 15 0

Produce.

*Produce.**First year.* *l. s. d.*216 Qrs. of barley, at 16 s. 172 16 0*Second year.* *l. s. d.*776 Qrs. of barley, - - - 620 16 070 Tons of hay, - - - 140 0 010 Cows, - - - 50 0 0£. 810 16 0*Third year.* *l. s. d.*210 Tons of hay, - - - 420 0 060 Fat heifers, - - - 420 0 010 Cows, - - - 50 0 0

Sale of implements, and 86

horses: They cost 160 l. - 80 0 0£. 970 0 0*GENERAL ACCOUNT.* *l. s. d.*Expences of the first year, - 816 5 0Interest, - - - 40 16 0Expences of the second year, 879 16 0Interest, - - - 84 15 0Expences of the third year, - 649 15 0Interest, - - - 117 4 0Expences of the fourth year, 1935 15 0£. 4523 16 0Produce of the first year, - 172 16 0of the second, - 810 16 0of the third, - 970 0 0£. 1953 12 0

Total

Total expence, £. 4523 16 0
 — Produce, 1953 12 0
 Total requisite to stock this
 farm, £. 2570 4 0

ANNUAL ACCOUNT.

Expences.
 Those of the fourth year, ex- l. s. d.
 cept cash in hand, - - 1855 15 0

Produce. l. s. d.
 300 Steers, - - 2350 0 0
 10 Cows, - - 50 0 0
 2400 0 0
 Expences, - - 1855 15 0
 544 5 0
 Interest, - - 128 10 0
 Profit, - - 415 15 0

The capital pays 21 l. 3 s. per cent.

The gentleman's account is as follows:

First year's expence, except l. s. d.
 labour, - - 809 9 0
 Labour, - - £. 106 16 0
 27 per cent. - - 28 17 0
 135 13 0
 Second year's expence, - 693 0 0
 Labour, - - £. 186 6 0
 27 per cent. - - 50 4 0
 236 10 0
 Carry over, £. 1874 12 0
 Third

Brought over, £	1874	12	10
Third year's expence,	-	-	561 0 0
Labour,	-	£	85 15 0
27 per cent.	-	-	22 19 0
			108 14 0
Expence of fourth year,	-	-	1899 0 0
Labour,	-	£	36 15 0
27 per cent.	-	-	9 19 0
			46 14 0
		£	4493 0 0
First year's total,	-	-	945 2 0
Interest,	-	-	47 5 0
Second year,	-	-	929 19 0
Interest,	-	-	93 14 0
Third year,	-	-	672 14 0
Interest,	-	-	127 6 0
Fourth year,	-	-	1945 14 0
		£	4761 5 0

Produce.

Of the first, second and third	£	s.	d.
year, as before,	-	-	1953 12 0
Total expence,	-	-	4761 5 0
Produce,	-	-	1953 12 0
Total stock,	-	£	2807 13 0

ANNUAL ACCOUNT.

Expences.

Those of the fourth year, except	
cash in hand,	£ 1865 14 0

Produce.

<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The same as before,	2400	0	0
Expences,	1865	14	0
	534	6	0
Interest,	140	7	0
Profit,	£. 393	19	0

The capital pays 19 l. per cent.

N^o 8.

Variation the seventh.

Three hundred acres arable, the soil light enough for turnips, and marled, chalked, or clayed.

I suppose 20 acres to be grass.

Stock.

Rent, &c.

300 Acres, at 7 s.	2100	0	0
Rates, tythe, &c. &c. &c. at 8 s.	42	0	0
	£. 147	0	0

Live stock.

Twelve horses,	£. 120	0	0
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Implements.

The same as in N ^o 4.	£. 280	9	0
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Tillage.

Three earths on 70 acres,	£. 42	0	0
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Labour.

Four earths on 210 acres,	42	0	0
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Mowing and making 8 acres of grass,	2	0	0
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Carry over,	£. 44	0	0
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Carting

(142)

Brought over,	£. 44	0	0
Carting and stacking, 2 days, of			
7 men,	-	0	17 6
Sundry small articles,	-	10	0 0
	£. 54	17	6

Sundry articles.

Marling, chalking, or claying			
280 acres, at the rate of 100			
loads per acre, at 4 l. per acre,	£.	s.	d.
including all expences,	- 112	0	0
108 Qrs. of oats, at 13 s.	- 70	4	0
Straw cut into chaff,	- 10	0	0
6 Tons of hay,	- 15	0	0
Shoeing, and wear and tear,	- 30	0	0
Cash in hand,	- 100	0	0
	£. 1345	4	0
Total,	£. 1989	10	6

Second year.

Rent, &c.	-	£. 147	0	0
35 Cows,	-	£. 175	0	0
4 Sows,	-	£. 6	0	0
140 Heifers or steers,	-	£. 700	0	0
60 sheep,	-	£. 36	0	0
Seed for 70 acres of wheat, 70				
of spring-corn, 70 of clover,				
and 70 of turnips,	-	£. 85	15	0

Labour.

Labour.

One earth on 70 acres of wheat-	l. s. d.
land, - - - - -	0 15 6
Sowing, - - - - -	0 17 6
Water-furrowing, - - - - -	0 17 6
Harrowing, - - - - -	0 8 9
Reaping and harvesting, at 6 s. - - - - -	21 0 0
Thrashing, 5 qrs. per acre (a two	
years fallow) 350 qrs. at 2 s. - - - - -	35 0 0
Carrying out, 20 at a time, 17	
journeys, - - - - -	1 14 0
Three earths on 70 acres of	
spring-corn, - - - - -	11 5 0
Sowing, - - - - -	0 17 6
Ditto clover, - - - - -	0 17 6
Water-furrowing, - - - - -	0 10 0
Rolling, - - - - -	0 5 0
Mowing and harvesting, at 4 s. - - - - -	14 0 0
Thrashing, 4 qrs. per acre, 280	
qrs. at 1 s. - - - - -	14 0 0
Carrying out, 172 qrs. of barley,	
30 at a time, 6 journeys, - - - - -	0 12 0
Mowing and making 20 acres of	
grass and 6 of clover into hay, - - - - -	6 10 0
Carting and stacking, 5 days, 7 men, - - - - -	2 3 4
Four earths on 70 acres of turnip-	
land, - - - - -	14 0 0
Carry over, £. 128 13 1	
Sowing,	

Brought over, £.	128	13	1
Sowing, - - - - -	17	6	0
Hand-hoeing twice, at 7s. - - - - -	24	10	0
Drawing and carting home, - - - - -			
at 7s. 6d. - - - - -	26	5	0
Chopping and raking 70 acres			
of stubble, - - - - -	5	5	0
Carting home, - - - - -	1	10	0
Ditching 300 perches, at 9 s. - - - - -	11	5	0
Carting 800 loads of marle,			
chalk, or clay, from a pit to			
the farm-yard, 30 per day,			
2½ d. per load filling, and 2s. 6d.			
driving, 27 days, at 8 s. 9d. - - - - -	11	17	9
175 Head of cattle, at 12 loads,			
2100 mixed with 800 loads of			
marle, 2900, at 1 d. - - - - -	12	1	8
Carting ditto, 30 per day, and			
spreading, at 3 s. per score,			
and 2s. 6d. driving, 97 days,			
at 7 s. - - - - -	33	19	0
Cutting chaff, - - - - -	13	4	
Sundry articles concerning the			
cattle, to the amount of a			
man a year - - - - -	24	0	0
Sundry small unspecified articles;			
a boy, - - - - -	9	0	0
£.	290	17	4
Sundry			

(145)

0 01 2301 Sundry articles,	l.	s.	d.
Shoeing, and wear and tear,	57	4	0
Market expences,	-	-	4 00 0
50 Loads of straw,	-	-	40 0 0
	£.	101	4 0
8 21 152 Total,	-	-	1541 16 4
First year,	-	-	1989 10 6
Interest,	-	-	99 19 0
Total necessary to stock this			
farm,	£.	3631	5 10

ANNUAL ACCOUNT.

Expences.	l.	s.	d.
Rent, &c.	147	0	0
140 Beasts,	700	0	0
60 Sheep,	36	0	0
Seed,	85	15	0
Labour,	290	17	4
Sundry articles,	101	4	0
	£.	1360	16 4

Produce.

70 Acres of wheat, $3\frac{1}{2}$ per acre,	l.	s.	d.
245,	490	0	0
207 Qrs. of barley, 46 qrs.			
0 at 16 s.	165	12	0
140 Beasts,	980	0	0
0 0 0			
Carry over,	£.	1635	12 0
Vol. II.	L		60 Sheep,

((146))

Brought over,	£. 1635 12 0
60 Sheep,	72 0 0
35 Cows,	175 0 0
	<u>1882 12 0</u>
Expences,	1360 16 4
	<u>521 15 8</u>
Interest,	181 11 0
	<u>£. 339 4 8</u>

The capital pays 14 l. 7 s. per cent.
The gentleman's account is as follows:

Stock.	l.	s.	d.
Rent, &c.	147	0	0
Live stock,	120	0	0
Implements,	280	9	0
Tillage,	42	0	0
Labour,	£. 54	17	6
27 per cent.	14	17	0
	<u>69</u>	<u>14</u>	<u>6</u>
Sundry articles,	£. 1345	4	0
Including 1120 marl-			
ing, suppose 500 of			
it laboured, 27 on			
that is,	125	0	0
	<u>1470</u>	<u>4</u>	<u>0</u>
	£. 2129	7	6

Second

(147)

<i>Second year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	-	147	0	0
Live stock,	-	917	0	0
Seed,	-	85	15	0
Labour,	£. 290 17 4			
27 per cent.	- 78 11 0			
		369	8	4
Sundry articles,	-	101	4	0
		1620	7	4
First year,	-	2129	7	6
Interest of ditto,	-	106	9	0
		£. 3856	3	10

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	-	147	0	0
Live stock,	-	736	0	0
Seed,	-	85	15	0
Labour,	-	369	8	4
Sundry articles,	-	101	4	0
		£. 1439	7	4

<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same as before,	-	1882	12	0
Expences,	-	1439	7	4
		443	4	8
Interest,	-	192	16	0
Profit,		£. 250	8	8

The capital pays 11 l. 9 s. per cent.

L 2

Nº 9.

Variation the eight.

*Two hundred and twenty acres arable, the soil
clay or loam, cultivated upon improved
principles; cabbages and lucerne.*

The twenty acres I suppose to be grass,
the rest arable; all which I throw into two
crops, viz. cabbages and lucerne, so pro-
portioned, that the first may be about suf-
ficient to winter-feed the cattle fed by the
other in summer.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 220 acres, at 17 s. -	187	0	0
Tythe, rates, &c. &c. &c.	88	0	0
	<u>£. 275</u>	0	0

Live Stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
6 Horses, - - - -	90	0	0
50 Cows, - - - -	250	0	0
5 Sows, - - - -	6	0	0
	<u>£. 346</u>	0	0

Implements.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Two carts, - - - -	24	0	0
Three ploughs, - - - -	4	14	6
Harnes, - - - -	10	0	0
Carry over, - - - -	<u>£. 38</u>	14	6
2 Harrows			

Brought over,	£.	38	14	6
Harrows, &c.	-	-	3	10 0
Dairy furniture,	-	-	70	0 0
Sundry small articles,	-	-	20	0 0
	£.	132	4	6

Seed and Tillage.

Three earths on 50 acres fallow	l.	s.	d.
for wheat, but not sown,	30	0	0
Seed for 50 acres of lucerne, at 6s.	15	0	0
Ditto for 10 acres of cabbages,	1	12	0
	£.	46	12 0

Labour.

Three earths on 50 acres of	l.	s.	d.
lucerne-land,	7	10	0
Harrowing,	0	8	4
Drilling, at 6d.	1	5	0
Hand-hoeing, 4 times, at 6s.	60	0	0
Cutting 3 times, at 1s. 6d.	11	5	0
Raking together, loading, and carting home, at 1s. 6d.	11	5	0
Five earths on 10 acres of cabbage land,	2	10	0
Digging the seed-bed, sowing, &c.	0	2	6
Planting, at 5s.	2	10	0
Four horse-hoeings, at 6d.	1	0	0
Two hand-hoeings, at 8s.	4	0	0
Cutting and carting, at 5s.	2	10	0
Carry over,	£.	104	4 10
	L	3	Six

(150)

Brought over,	£. 104	4	10
Six earths on 140 acres of fallow,	42	0	0
Mowing, making, and carting			
12 acres of grass,	-	4	14
Sundry small articles,	-	9	0
		159	18
27 per cent		43	4
	£. 208	2	10

Sundry articles.

A drill plough,	£. 8	0	0
Refold for,	4	0	0
		4	0
Straw cut into chaff,	-	4	0
54 Qrs. of oats, at 13 s.	-	35	2
Shoeing, and wear and tear,	-	20	0
Twenty loads of straw,	-	15	0
	£. 78	2	0
Total,	£. 1081	2	4

Second year.

Rent, &c.	-	275	0
100 Cows,	-	500	0
10 Sows,	-	14	0
Seed for 75 acres of lucerne,	-	22	10
Ditto for 30 of cabbages,	-	4	16
	£. 816	6	0

Labour.

Three earths on 75 acres of			
lucerne-land,	-	11	5
Drilling,	-	1	17
Carry over,	£. 13	2	6

Hand-

Brought over,	£.	13	2	6
Hand-hoeing 4 times, at 6 s.		90	0	0
Cutting 3 times, 1 s. 6 d.	-	16	17	6
Raking together, loading, and carting home, at 1 s. 6 d.		16	17	6
Three earths on 30 acres of cabbage-land,	-	4	10	0
Digging the seed-bed, sowing, &c.		0	6	0
Planting, at 5 s.	-	2	10	0
Four horse-hoeings, at 6 d.	-	3	0	0
Two hand-hoeings at 8 s.	-	12	0	0
Cutting and carting, at 5 s.		7	10	0
Two hand-hoeings of the 50 acres of lucerne,	-	30	0	0
Four horse-hoeings, at 6 s.	-	5	0	0
Four cuttings, at 1 s. 6 d.	-	15	0	0
Raking together, loading, and carting home, at 1 s. 6 d. 4 times,		15	0	0
150 Perches ditching,	-	7	10	0
Carting 450 loads of earth to farm-yard, 20 per day, 22 days, at 6 s. 3 d.	-	6	17	6
Mixing 450 of earth with 550 of dung, 1000, at 1 d.	-	4	3	4
Carting, and spreading 1000 loads, 20 loads per day, 50 days, at 4 s. 3 d.	-	10	12	6
Carry over,	£.	265	16	10
L 4			10 Acres	

Brought over,	£. 265	16	10
10 Acres of hay,	4	10	10
Sundry small articles,	6	0	0
	<u>275</u>	16	10
27 per cent.	74	10	0
	<u>£. 350</u>	6	10

<i>Sundry articles.</i>			
Shoeing, and wear and tear,	20	0	0
Straw cut into chaff,	4	0	0
Oats, - - -	35	2	0
Sixty loads of straw,	45	0	0
	<u>£. 104</u>	2	0
Second year, -	<u>£. 127</u>	14	10

<i>Third year.</i>			
Rent, &c. - - -	<u>£. 275</u>	0	0
225 Cows, - - -	<u>£. 1125</u>	0	0
15 Sows, - - -	<u>£. 20</u>	0	0
Seed for 75 acres of cabbages,	<u>£. 11</u>	5	0

<i>Labour.</i>			
Two hand-hoeings of 125 acres	l.	s.	d.
lucerne, at 6 s. - - -	75	0	0
Four horse-hoeings, at 6 s.	12	10	0
Four cuttings, at 1 s. 6 d.	87	10	0
Raking, loading, and carting,			
at 1 s. 6 d. - - -	37	10	0

Carry over,	£. 162	10	0
	4	Earths	

((153))

Brought over,	£. 162	10	0
4 Earths on 75 acres of cabbages,	15	0	0
Digging the seed-bed and sowing,	1	0	0
Planting, at 5 s.	18	15	0
Four horse-hoeings, at 6 d.	7	10	0
Two hand-hoeings, at 8 s.	30	0	0
Cutting and carting, at 5 s.	18	15	0
200 Perches of ditching,	10	0	0
Carting 600 loads of earth into farm-yard, 30 days, at 6 s. 3 d.	9	7	6
Mixing 600 loads of earth, with 2000 of dung, 2600 loads, at 1 d.	10	16	8
Carting 2600 loads, 130 days, at 4 s. 3 d.	27	12	6
Cutting chaff,	0	16	8
Mowing, making, carting, and stacking 20 acres of hay,	7	0	0
Sundry small articles,	10	0	0
	329	3	4
27 per cent.	88	16	0
	£. 417	19	4
<i>Sundry articles.</i>			
	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear,	20	0	0
Oats,	35	2	0
80 Loads of straw,	60	0	0
Cash in hand,	80	0	0
	£. 195	2	0
Total,	£. 2044	6	4
		First	

(134)

First year's expence,	-	£. 1081	2	4
Interest,	-	54	11	0
Second year's expence,	-	1270	14	10
Interest,	-	117	11	0
Third year's expence,	-	2044	6	4
	-	£. 4567	15	6

Produce,

First year. £. s. d.

50 Cows, - - - 250 0 0

Second year.

150 Cows, - - - 750 0 0

£. 1000 0 0

Total expence, - 4567 15 6

Produce, - 1000 0 0

Total necessary to stock this

farm, - £. 3567 15 6

ANNUAL ACCOUNT.

Expences, l. s. d.

Rent, &c. - - - 275 0 0

Seed, - - - 11 5 0

Labour, - - - 417 19 4

Sundries, - - - 115 2 0

£. 819 6 4

Produce, l. s. d.

375 Cows, - - - 1875 0 0

Expences, - - - 819 6 4

1055 13 8

Interest, - - - 178 7 0

Profit, - - - £. 877 6 8

The

The capital pays 29 *l* 11*s*. *per cent*. This profit is very considerable; but it must not pass without a few remarks. I am sensible that many of my readers will treat this calculation with no small contempt; and the sentiment will result from the too common and vulgar idea, that nothing that *has not been* can *be*. No such farm as this exists, say some; but is that any reason that such an one never should exist? The extent to which this culture is carried in the preceding calculation, is a mere matter of multiplication. The grand point is, the fact of *one* acre of lucerne, and *one* acre of cabbages, yielding food sufficient for such a number of cattle; if that fact is once established, the proportions of whole farms will follow of course.

I here suppose an acre of cabbages to winter-feed five cows, with the assistance of straw. This fact I know not only from intelligence, but experience. The straw, I should remark, is not bought in *such* quantities as absolutely necessary for the cattle, but principally for littering the cows, and raising dung: Cows may be wintered on cabbages *alone*; but it is more
advisable

adviseable to give them a small quantity of dry food at the same time; and the more litter for manure the better: 75 acres of cabbages wintering in this manner 375 cows, the quantity of summer-food is to be proportioned to it, and that is, 125 acres of lucerne, at the rate of 13 cows *per* acre; which I know from repeated experiments, will at any time be done by that grass, when on a good soil, and *kept clean* from weeds.

Cabbages and lucerne will undoubtedly perform greater things than here supposed: for it should be remembered, that the manuring and culture are very complete on this farm. The 2600 loads of compost annually raised, are sufficient to cover the 200 arable acres *every* year, at the rate of 13 loads *per* acre, which no one can deny, being a very considerable and uncommon manuring: But what I apprehend should place the matter beyond all doubt, is the register of several experiments on both these vegetables, which have lately appeared, and which carry the profit of both much higher *without* these advantages, than I have *with* them: Nor can I
avoid

avoid calling on gentlemen to practise a husbandry so simple in its general business, and so greatly profitable as this. I have supposed cows to be the stock, as being, I apprehend, the most beneficial; but that point may be varied according to the gentleman's inclination. If he would not chuse to have so vast a dairy as 375 cows, he may employ them in numerous situations in suckling, or he may apply his farm to breeding, or to fattening heifers and small steers. The only general rule he has to observe is, so to proportion the two crops, that the winter provision may be just sufficient to answer the quantity of that of summer. The great advantage of such a farm is, the simplicity of the business. There are never but two crops on the ground, and those both applied to the same use; and whether that be dairying, suckling, breeding, or fattening, the whole business of buying and selling is performed at once or twice; and consequently, the gentleman's attention not divided, but kept wholly employed in the culture of his two crops.

His profit is very great, and undoubtedly renders such a farm an object of importance

to numerous gentlemen with 9 or 4000 *l.* in their pockets, with no better way of placing it to interest than common. A business so agreeable as agriculture, and so much more suited to the relations of country gentlemen, than the counting-houses and counters of a smoaky city, and which, from a capital of 3500 *l.* yields above 100 *l.* a year, is, I conceive, a much more eligible one to a GENTLEMAN, than any to be found in commerce or manufactures.

N^o 10.*Variation the ninth.*

Three hundred acres arable, the soil light enough for turnips, cultivated on improved principles; carrots in a course.

Twenty acres of it grass-land near the house for convenience; the rest, 280 acres; are thrown into the following course, 70 in each crop; 1. Carrots; 2. Barley; 3. Clover; 4. Wheat.

*Stock.**Rent, &c.*

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Of 300 acres, at 15 <i>s.</i>	225	0	0
Tythes, rates, &c. &c. at 8 <i>s.</i>	90	0	0
	<u>£. 315</u>	<u>0</u>	<u>0</u>

Live

(159)

<i>Live stock.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
10 Horses,	-	-	-	150	0	0
60 Cows,	-	-	-	300	0	0
8 Sows,	-	-	-	10	0	0
200 Beasts,	-	-	-	1000	0	0
				<u>£. 1460</u>	0	0

<i>Implements.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
A broad-wheeled waggon,	-	-	-	70	0	0
Three narrow-wheeled ditto,	-	-	-	75	0	0
Harness,	-	-	-	20	0	0
Three carts,	-	-	-	30	0	0
Six ploughs,	-	-	-	9	9	0
Three harrows,	-	-	-	7	0	0
Three rollers,	-	-	-	6	0	0
60 Sacks,	-	-	-	9	0	0
Screens, bushels, shovels, &c.	-	-	-			
&c. &c.	-	-	-	20	0	0
Dairy furniture,	-	-	-	30	0	0
				<u>£. 276</u>	9	0

<i>Seed and Tillage.</i>				<i>l.</i>	<i>s.</i>	<i>d.</i>
Four earths on 70 acres of						
wheat-land,	-	-	-	56	0	0
Seed,	-	-	-	35	0	0
Sowing,	-	-	-	1	15	0
Water-furrowing,	-	-	-	0	17	6
Two earths on 70 acres of						
spring-corn land,	-	-	-	28	0	0
Carry over,	-	-	-	<u>£. 121</u>	12	6
						Seed,

Brought over,	£.	121	12	6
Seed,	-	-	-	35 0 0
Sowing,	-	-	-	0 17 6
Water-furrowing,	-	-	-	0 8 9
Seed clover,	-	-	-	14 0 0
Sowing,	-	-	-	0 17 6
Harrowing,	-	-	-	3 10 0
Seed for 70 acres of carrots, at 6 s.	-	21	0	0
	£.	197	6	3

Labour.

One earth on 70 acres of wheat-	l.	s.	d.
land,	-	-	3 10 0
Sowing,	-	-	0 17 6
Water-furrowing,	-	-	0 17 6
Harrowing,	-	-	0 17 6
Weeding,	-	-	3 10 0
Reaping and harvesting, at 6 s.	-	21	0 0
Thrashing the crop, 3 qrs. per			
acre, 210 qrs. at 2 s.	-	21	0 0
Carrying out, 20 qrs. at a time,			
11 journeys,	-	-	1 2 0
Three earths on 70 acres of			
spring-corn,	-	-	10 10 0
Sowing,	-	-	0 17 6
Water-furrowing,	-	-	0 8 9
Sowing clover,	-	-	0 17 6
Carry over,	£.	65	8 3
Harrowing,			

Brought over,	£. 65	8	3
Harrowing,		0	17 6
Mowing and harvesting, at 4 s.	14	0	0
Thrashing the crop, 5 qrs. per			
acre, 350 qrs. at 1 s.	17	10	0
Carrying out 52 acres of barley,			
260 qrs. 30 at a time; 9			
journeys,		0	18 0
One earth on 70 acres of carrot-			
land, trench-ploughed with			
6 horses, $\frac{1}{2}$ an acre per day,			
4 men, 8 s. per acre,	28	0	0
Sowing,	3	10	0
Harrowing,	0	17	6
Hand-hoeing, at 3 l.	21	0	0
Digging up,	70	0	0
Carting home, at 5 s.	17	10	0
Mowing and making 20 acres			
of grass,	5	0	0
Carting and stacking, 4 days,			
of 7 men,	1	15	0
Thatching,	0	10	0
Chopping and raking 70 acres			
of stubble,	5	5	0
300 Perches of ditching,	15	0	0
Carting 900 loads of earth to			
farm-yard, 30 per day, at 10 s.	15	0	0
Carry over,	£. 471	1	3
VOL. II.	M	270	Head

Brought over, £. 471 1 3

270 Head of cattle, 2100 loads
of dung, mixing with 900 of
earth, at 1 d. - - - 12 10 0

Carting and spreading 3000
loads, 100 days, at 7 s. - - - 35 0 0

Cutting chaff, - - - - 1 13 4

Carting faggots, - - - - 0 8 0

Sundry labour concerning cattle,
a man a year, - - - 24 0 0

Sundry small articles unspecified;
a boy, - - - 9 0 0

553 12 7

27 per cent. - - - 149 6 0

£. 702 18 7

Sundry articles. l. s. d.

Shoeing, - - - 7 4 0

Wear and tear, - - - 40 0 0

Market expences, - - - 5 0 0

80 Loads of straw, - - - 60 0 0

Cash in hand, - - - 100 0 0

£. 212 4 0

Total, £. 3163 17 10

ANNUAL ACCOUNT.

Expences. l. s. d.

Rent, &c. - - - 315 0 0

200 Beasts, - - - 1000 0 0

Carry over, £. 1315 0 0

(163)

Brought over,	£. 1315	0	0
Seed for 70 acres of wheat, 70			
of spring-corn, 70 of clover,			
and 70 of carrots,	105	0	0
Labour, - - - -	702	18	7
Sundry articles, - -	112	4	0
	£. 2235	2	7

<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
60 Cows, - - -	300	0	0
200 Beasts, at 9 <i>l.</i> -	1800	0	0
70 Acres of wheat, 3 $\frac{1}{2}$ qrs.			
per acre, 245 qrs. at 2 <i>l.</i>	490	0	0
52 Acres of barley, 5 qrs. per			
acre, 260 qrs. at 16 <i>s.</i> -	208	0	0
	2798	0	0
Expences, - - -	2235	2	7
	562	17	5
Interest, - - -	158	4	0
Profit, - - -	£. 404	13	5

The capital pays 17 *l.* 15 *s.* per cent.
 The produce is in no point calculated too
 high; for the manuring is very considerable,
 and the culture of the carrots extremely
 complete in the eradication of weeds. I
 need not repeat the remark I have often
 made, that wherever the hoeing, &c. can

be cheaper performed, the farm will turn out proportionably more beneficial.

Nº 11.

Variation the tenth.

One hundred and fifteen acres arable; a poor, cold, flat, wet, loamy soil, tried for improvement.

This being the first farm which I have come to for improvement, a few introductory remarks are necessary.

It is by no means agreed among farmers, which is the most profitable way of expending their money, in hiring a farm that is already improved, or in good condition, or one that has been much neglected. Opinions on this point are various: It is very difficult, if not impossible, for one man, from his own experience, to decide in such a point; calculations can alone enable us to form even a distant idea of the subject in any of its numerous variations. It is true, the *data* on which such calculations are founded, may be liable to errors; but if they are conceived with a tolerable general knowledge, they must infallibly give birth to conclusions much more useful, and nearer the truth, than

than random-guesses. Accuracy cannot be expected; but the method of forming previous estimates to the hiring an improveable farm, will receive fresh lights from reducing business into figures, and at least give the farmer a better clue to conduct himself, than the *unconnected* ideas of the most experienced cultivator. Experience itself, in these matters, is sometimes useless, if she does not submit to calculation.

The farm before me I suppose to be in very bad condition; or, in other words, in such a state as almost every farmer in the three kingdoms knows where to find a parallel. The fences in bad condition, the ditches filled up, the soil poor and worn out, flat, cold, and wet, but never drained: such land as yields but an indifferent crop with a summer fallow, and worth about 10s. per acre landlord's rent. The fifteen acres old grass, and the rest arable, or could

Stock.

Rent, &c. 135 10 0

Rent of 115 acres, at 10s. 57 10 0

Tythe, at 4 s. 11 10 0

Rates, &c. at 4's. 2 18 - 00 11 10 0

£. 80 10 0

M 3

Live

	<i>Live stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
8 Horses,	- - -	120	0	0

	<i>Implements.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
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One waggon,	- - -	25	0	0
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Two carts,	- - -	24	0	0
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Harnes,	- - -	12	0	0
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Four ploughs,	- - -	6	6	0
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Harrows and rollers,	- - -	4	0	0
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30 Sacks,	- - -	4	10	0
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Sundry small articles,	- - -	12	0	0
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		<u>£. 87</u>	<u>16</u>	<u>0</u>
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	<i>Tillage.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
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Three earths on 25 acres, designed	- - -	15	0	0
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for wheat,	- - -	15	0	0
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Water-furrowing,	- - -	1	5	0
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		<u>£. 16</u>	<u>5</u>	<u>0</u>
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	<i>Labour.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
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Five earths on 100 acres of fallow,	- - -	25	0	0
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Ditching 100 perches, at 2 s. 6 d.	- - -	12	10	0
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Ditto 200, at 2 s.	- - -	20	0	0
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Ditto 200, at 1 s. 6 d.	- - -	15	0	0
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Ditto 500, at 1 s.	- - -	25	0	0
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Hollow-ditching 100 perches,	- - -	11	10	0
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at 6 d.; the digging and filling,	- - -	2	10	0
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Ditto, 7900, at 3 d.	- - -	98	15	0
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		<u>£. 198</u>	<u>15</u>	<u>0</u>
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Carry over,	- - -	198	15	0
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Bringing	- - -			
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Brought over,	£. 198	15	6
Bringing 300 waggon-loads of manure from nearest town,			
2 men per day, 100 at 2 s.			
100 at 2 s. 6 d. and 100 at 3 s.	37	10	0
Mowing, &c. 8 acres of hay,	2	16	0
Sundry small articles of work,	6	0	0
	£. 245	1	0

Sundry articles.

Suppose these hedges are found deficient in bushes for new- making them; for this article	l.	s.	d.
we may safely allow,	-	30	0 0
300 Loads of manure, at 5 s.	75	0	0
Materials for filling up 100 perches of hollow-drains,			
at 9 d.	-	3	15 0
Ditto for 7900 perches, at 6 d.	197	10	0
72 Qrs. of oats, at 13 s.	46	16	0
Shoeing, and wear and tear,	-	20	0 0
Straw cut into chaff,	-	5	0 0
Paling at the end of gates, and cross-ditches, suppose	-	20	0 0
Cash in hand,	-	50	0 0
	£. 448	1	0
Total of first year,	£. 996	13	0

Before I proceed to the second year's
account, I must explain a few particulars

In this, which may not be at once comprehended.

Eight horses I allow to this farm, upon account of the great quantity of carting to be done on it; when it is improved two horses must be sold, if the whole is kept in arable, and more, if part of it be laid down to grass. The four ploughs are bought, to be in readiness in case all the horses, at a pinch, should be set to that work.

I suppose the last farmer to have given three earths to a portion of the farm for wheat; but the new one to reject its being sown, as that would throw him so much the longer out of his improvements. This is uncommon in practice, but highly practicable and expedient: the reason why we see nothing of this sort among farmers is, their grasping at large quantities of land: When they hire to *improve*, they take so much, that but little can be done in a year; consequently, the work is a tedious while executing, and the lease is three-fourths expired before it is finished, and others in a situation to reap the benefit of his labours.

If the improvement of a farm is in question, nothing can be clearer than the propriety

propriety of going to work with spirit, and finishing the whole at once. Nothing for this is requisite but money; and he who begins without the whole amount of this in his pocket, goes to work without his tools. All depends on the farmer's proportioning his land to his money. Every man would have money enough, if he had studied this proportion when he hired his farm.

I suppose my cultivator to fallow the whole farm: This is highly necessary for many reasons. In the *first* place, This land, and such farmers as in all probability have occupied it, render a good summer fallow requisite for cleaning and meliorating the soil. *Next*, This point is of the utmost consequence to the hollow-ditching; the whole year must be taken for that work: If the land is part of it cropped with any thing, this principal work must be crowded too much in respect of time. *Thirdly*, It is of some advantage to the farmer, in the midst of these undertakings, not to have his attention divided by sowing, reaping, &c. which must employ his horses some times, and take off his men when he most wants them.

The

The ditches I have sketched, I suppose to amount to two thirds of all on the farm; the remaining third I leave for the second year's work: 1500 perches I think as much as can be found in a well-disposed farm of 115 acres; and if the fields are too small, they should be reduced in number, as so perfect a draining as I have sketched, will not need numerous ditches. The variations I have made in their size, are such as will ever be found necessary for draining farms in a flat country. The first business is to provide a course for collected water, which, in a level tract, cannot be done by ditches of the same depth. I have experienced this in many fields: in proportion to their depth they must be *wide*; and consequently, the whole expence of them increased greatly. This is the reason of my charging them at different prices.

The hollow-ditching I sketch in the proportion of 80 perches to an acre, which will effectually drain the wettest soils. The variation of 100 at 6 *d.* is an allowance for cutting through headlands, and other short rising grounds, through which the drains are deeper; and the workmen, consequently, paid a proportionable price.

In

In the article manure, I suppose the waggon and four horses to be employed the year through in bringing it. This manure, consisting of ashes, dung, &c. to be laid upon the ditch-earth in the proportion of one third dung to two thirds earth: this is afterwards to be turned over twice, and then carried on to the land.

The allowance of bushes for the hedges is absolutely requisite; for, in so large an extent of ditching, there must be some that will not afford bushes enough for their own dead hedge; and as it is ever adviseable to make the hedge when the ditch is dug, for the sake of repairing or heightening the bank, bushes must be supposed wanting: 30 l. is the lowest I could reckon for this article.

The materials for filling up the drains, I suppose carted by the feller: They are so various, that I thought to calculate them up so much a perch, would be the surest and least complex method. Where stones are extremely plentiful, they will be the cheaper. In other places, wood, bricks, horns, broom, ling, &c. &c. &c. The dimensions of the drain I suppose 32 inches deep, 4 inches wide

wide at bottom, and as wide at top as to admit the man for digging them.

I have charged this account with 20 *l.* for paling at the end of gates, and across ditches; not that it is a charge peculiar to farms of this sort, but when the fences of one are bringing into good repair like these before us, such works should not fail being done; besides, the necessity will probably be much greater in such an one, which, in general, is in so bad a condition, than in others occupied by better tenants. At the ends of gates we generally meet with gaps; for the ditch concluding, and the hedge finishing with the post, makes it ever a weak place for cattle to push through: A short rail, fixed to the gate-post at one end, and to a little post drove into the bank at the other, with pales above two feet long, strengthens the whole, and secures the fence: Without this precaution, the best are useless, unless the farmer is at a constant expence in mending these gaps.

What I mean by paling across ditches, is at those places where three meet, or where the ditch changes its course, and crosses the hedge; at such places we generally find gaps, which

which are either unavoidable, or require great quantities of bushes to thrust in and be staked down; which is a poor mending, and requires constant supplying: Instead of it, what I propose, and have always practised is, to drive two small posts down in the banks, then to rail it across, and pale it down to the bottom of the ditch. If this business is done effectually, it may, on an hundred acres, come to about 20 *l.* more or less. No money is better laid out.

<i>The second year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	-	79	10	0
Seed for 25 acres of wheat, 25				
of spring-corn, 25 of clover,				
and 25 of beans,		£. 40	0	0

<i>Labour.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
One earth on 25 acres of wheat-				
land,	-	8	5	0
Sowing,	-	0	12	6
Water-furrowing,	-	1	5	0
Weeding,	-	1	5	0
Reaping, &c. at 6 s.	-	7	10	0

Carry over, £. 11 17 6

Thrashing

Brought over,	£. 11 17 6
Thrashing the crop, 4 qrs. <i>per</i>	
acre, (a two year's fallow) 100	
qrs. at 2 s. - - -	10 0 0
Carrying out 10 qrs. at a time,	
20 journeys, 2 men, -	1 0 0
One earth on 25 acres of spring-	
corn land, - - -	1 5 0
Sowing, - - -	0 6 3
Water-furrowing, - - -	0 12 6
Sowing clover, - - -	0 6 3
Harrowing, - - -	0 6 3
Rolling, - - -	0 2 1
Mowing and thrashing, at 4 s.	5 0 0
Thrashing the crop, $3\frac{1}{2}$ qrs. <i>per</i>	
acre, at 1 s. - - -	4 7 6
Carrying out 5 acres of barley	0 2 0
One earth on 25 acres of bean-land,	1 5 0
Sowing, - - -	1 5 0
Water-furrowing, - - -	0 12 6
Hand-hoeing once, at 6 s. -	7 10 0
Horse-hoeing 3 times, at 6 d. -	1 17 6
Reaping and harvesting, at 7 s.	8 15 0
Thrashing the crop, 2 qrs. <i>per</i>	
acre, at 1 s. - - -	2 10 0
Carry over, £.	59 0 4
Carrying	

Brought over,	£. 59	0	4
Carrying out, 50 qrs. 9 at a time, say 6 journeys,	-	0	12 0
3 Earths on 25 acres of fallow,	3	15	0
300 Waggon-loads of manure were brought the last year, if we calculate each load to be equal to the quantity of 3 of clay, the whole must be laid to 1800 of earth; in all 2700 loads, mixing, at 1 d.	-	11	5 0
Ditto a second time,	-	11	5 0
Carting on to the land 2700 loads, 30 <i>per diem</i> , 90 days, at 3 s. <i>per</i> score filling and spreading, and 1 s. 3 d. driving <i>per</i> day, 5 s. 9 d. <i>per</i> day,	-	25	17 6
Ditching 100 perches, at 2 s.	10	0	0
100 at 1 s. 6 d.	-	7	10 0
300 at 1 s.	-	15	0 0
Mowing, making, &c. 8 acres of hay,	-	2	16 0

I have calculated all the preceding work, and find it to employ 8 horses 120 days; they will have good time therefore, to

Carry over, £. 147 0 10
bring

Brought over,	£.	147	0	10
bring 180 loads of town manure,				
100 at 2 s. 6 d. and 80 at 2 s.		20	10	0
Sundry articles,	-	-	6	0
	£.	173	10	10

<i>Sundry articles.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Bushes,	-	10	0	0
180 Loads manure,	-	45	0	0
Shoeing, and wear and tear,	-	25	0	0
Market expences,	-	3	0	0
		£.	83	0
Expence of the second year,	£.	376	0	10

A fourth of the arable I again fallow two years running; if I did not, there would be no fields vacant for manuring but at one season of the year. The 2700 loads I suppose to be spread on 50 acres of land, which is 54 *per* acre: Half is the fallow for summer work and spring-corn land, the other half for winter and spring work.

<i>Account of the third year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	-	79	10	0
Seed for 25 acres of wheat, 25				
of barley and oats, 25 of clo-				
ver, and 25 of beans,	-	50	0	0
		15	Cows,	

15 Cows,	-	-	£. 75	0	0
2 Sows,	-	-	2	0	0

Labour.

Ploughing, sowing, &c. reaping,
and harvesting 25 acres of *l. s. d.*
wheat, as before, - - 11 17 6

Thrashing, $4\frac{1}{2}$ qrs. *per* acre,
(two whereof fallow), 112 $\frac{1}{2}$
qrs. at 2 s. - - 11 5 0

Carrying out, 10 qrs. at a time,
11 journeys, - 1 2 0

Ploughing, &c. reaping and har-
vesting 25 acres barley and oats, 7 18 4

Thrashing, $4\frac{1}{2}$ qrs. *per* acre, at 1 s. 5 12 6

Carrying out 9 acres of barley,
4 journeys, - - 0 8 0

Labour on beans as before, to
harvesting, - - 21 5 0

Thrashing the crop, $2\frac{1}{2}$ qrs.
per acre, 62 $\frac{1}{2}$ at 1 s. - 3 2 6

Carrying out, 9 qrs. at a time,
7 journeys, - - 0 14 0

Mowing and making, &c. 15
acres of hay, - - 6 0 0

- - - Carry over, £. 69 4 10

Brought over,	£. 69	4	10
180 Loads of manure brought the last year, or 540 cart-loads, the proportion of ditch-earth is 1080; in all 1620, at 2 <i>d.</i> twice mixing, - -		13	10 0
Carting ditto on to the land, 30 loads <i>per</i> day, 54 days, as be- fore, at 5 <i>s.</i> 9 <i>d.</i> -		15	10 6
23 Head of cattle, at 12 loads each, 276 loads, carting double this quantity of earth, or 552 loads into farm-yard, 25 <i>per</i> <i>diem</i> , 22 days, at 3 <i>d.</i> filling, and 1 <i>s.</i> 3 <i>d.</i> driving, 7 <i>s.</i> 6 <i>d.</i> -		8	5 0
Filling, spreading, and carting 828 loads, 25 <i>per</i> day, 33 days, 3 <i>s.</i> <i>per</i> score filling and spread- ing, and 1 <i>s.</i> 3 <i>d.</i> 5 <i>s.</i> <i>per</i> day, -		8	5 0
Mixing 828, at 1 <i>d.</i> -		3	9 0
The preceding work allows time for bringing 220 loads of town manure, - -		22	0 0
Chopping, raking, and carting 25 acres of wheat-stubble, -		3	10 0
Sundry small articles, -		6	0 0
	£. 149	14	4
	Sundry		

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
220 Loads of manure, -	55	0	0
Shoeing, and wear and tear, -	25	0	0
Market expences, -	3	0	0
20 Loads of straw, -	15	0	0
	<u>£. 98</u>	<u>0</u>	<u>0</u>

Third year's expences, £. 454 4 4

Before we proceed to the next year, we must examine the whole quantity of earth thrown out of all the ditches.

800 Perches at 3 loads, -	2400
300 Ditto, at 4 ditto, -	1200
300 Ditto, at 6 ditto, -	1800
100 Ditto, at 7 ditto, -	700
Total, -	<u>6100</u>

Of which there have been used, - 3432

Remains to be carried, - 2668

Account of the fourth year. l. s. d.

Rent, &c. -	79	10	0
Seed, as before, -	<u>50</u>	<u>0</u>	<u>0</u>

Labour. l. s. d.

On 25 acres of wheat, as before, 24	4	6
Ditto on 25 acres of barley and oats, as before, to harvest, -	7	18 4

Thrashing, 5 qrs. per acre, at 1 s. 6 5 0

Carry over, £. 38 7 10

(180)

Brought over,	£. 38	7	10
Carrying out 11 acres of barley,			
5 qrs. per acre, 55 qrs. 12 at			
a time, say 4 journeys,	-	0	8
Labour on beans, as before, to			
harvest,	-	-	21 5 0
Thrashing the crop, 4 qrs. per			
acre, 100 qrs. at 1 s.	-	5	0 0
Carrying out, 9 qrs at a time,			
11 journeys,	-	1	2 0
Mowing, &c. 15 acres of hay,		6	0 0
220 Loads of manure brought			
last year, 660 cart-loads twice,			
the quantity of earth is 1320;			
the whole is 1980, at 2 d.			
mixing,	-	-	16 10 0
Carting ditto on to the land, 30			
loads per day, 66 days, as be-			
fore, at 5 s. 9 d.	-	18	19 6
Carting, mixing, and recarting			
earth and dung to farm-yard,			
as before,	-	-	19 19 0
Labour on stubble,	-	3	10 0
The preceding work allows the			
bringing 200 loads of manure,	20	0	0
Sundry small articles,	-	6	0 0
	£. 157	1	4

Sundry

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
200 Loads of manure, -	50	0	0
Shoeing, and wear and tear, -	30	0	0
Market expences, - -	3	0	0
20 Loads of straw, -	15	0	0
5 more cows bought, and 1 sow, -	26	0	0
	<u>£. 124</u>	<u>0</u>	<u>0</u>
Total, -	<u>£. 410</u>	<u>11</u>	<u>4</u>

The state of the farm at the end of this year will be as follows:

There has been carted on to it of compost
 — dung and ditch earth, - 6300 loads,
 Also, of farm-yard compost, 1656
7956

Which is within a trifle of 80 loads *per* acre over the 100 arable acres. Besides this, there is, upon the farm, 200 waggon-loads of town manure unspread, and 796 cart-loads of ditch earth, together with 1396 cart-loads of compost. That is enough to cover the 100 acres again, at the rate of 14 loads *per* acre; which situation may be called a thorough improvement: I shall therefore, in the receipts of this fourth year, enter the sale of the horses: not that 6 horses are absolutely requisite for the culture of the 100 acres, but as the time they will have to spare from tillage

will be all employed in bringing manure, their keeping will be an advantage.

RECAPITULATION.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Expence of the first year, -	996	13	0
Interest, - - -	49	16	0
Expence of the second year,	376	0	10
Interest, - - -	68	12	0
Expence of the third year,	454	4	4
Interest, - - -	91	6	0
Expence of the fourth year,	410	11	4
	<u>£. 2447</u>	<u>3</u>	<u>6</u>

Produce of the second year.

25 Acres of wheat, 100 qrs.	<i>l.</i>	<i>s.</i>	<i>d.</i>
at 2 <i>l.</i> - - -	200	0	0
5 Acres of barley, 17½ qrs.			
at 16 <i>s.</i> - - -	14	0	0
25 Acres of beans, 50 qrs. at			
1 <i>l.</i> 12 <i>s.</i> - - -	80	0	0
	<u>£. 294</u>	<u>0</u>	<u>0</u>

Produce of the third year.

25 Acres of wheat, 4½ qrs. per	<i>l.</i>	<i>s.</i>	<i>d.</i>
acre, 112½ qrs. at 2 <i>l.</i> -	225	0	0
9 Acres of barley, 4½ qrs. per			
acre, 40½ qrs. at 16 <i>s.</i> -	32	8	0
25 Acres of beans, 62½ qrs. per			
acre, at 1 <i>l.</i> 12 <i>s.</i> -	100	0	0
Carry over, £.	<u>357</u>	<u>8</u>	<u>0</u>
		15	Cows,

(183)

Brought over,		£. 357	8	0
15 Cows,	-	75	0	0
		432	8	0
The second,	-	294	0	0
		£. 726	8	0
Total expence,	-	2447	3	6
Produce,	-	726	8	0
Total necessary to stock this				
farm,	-	£. 1720	15	6

Account of the fourth year.

<i>Expences.</i>				
Total,	-	£. 410	11	4
<i>Produce.</i>		l.	s.	d.
25 Acres of wheat, as before,		225	0	0
11 Acres of barley, 5 qrs. per				
acre, 55 qrs. at 16 s.	-	44	0	0
25 Acres of beans, 100 qrs. at				
17. 12 s.	-	160	0	0
20 Cows,	-	100	0	0
Sale of 2 horses and harness,		15	0	0
		544	0	0
Expences,	-	410	11	4
		133	8	8
Interest,	-	86	1	0
Profit,	-	£. 67	7	8

N 4

ANNUAL

(184)

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- -	79	10	0
Seed,	- - - -	50	0	0
<i>Labour.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
On wheat, as before,	-	24	4	6
Ditto on barley and oats, to the thrashing,	- -	14	3	4
Carrying out 15 acres of barley, 75 qrs. 12 at a time, 6 journeys,		0	12	0
Labour on beans, as before,		27	7	0
Mowing, &c. 15 acres of hay,		6	0	0
Carting earth to farm-yard, turning, and recarting,	-	21	0	0
Labour on stubble,	-	3	10	0
The preceding will allow the bringing of 130 loads of town manure,	- -	13	0	0
Cutting chaff,	- - -	0	16	8
Sundry small articles,	- -	5	0	0
		£. 115	13	6
<i>Sundry articles.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
130 Loads of manure,	-	32	10	0
Shoeing, and wear and tear,	-	25	0	0
Market expences,	- - -	3	0	0
20 loads of straw,	-	15	0	0
		£. 75	10	0
Total,	-	£. 320	13	6
<i>Produce.</i>				

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
25 Acres of wheat, as before,		225	0	0
15 Acres of barley, 5 qrs. <i>per</i>				
acre, 75 qrs. at 16 s.	-	60	0	0
25 Acres of beans, as before,		160	0	0
20 Cows, - - - - -		100	0	0
		<u>545</u>	0	0
Expences, - - - - -		320	13	6
		<u>224</u>	6	6
Interest, - - - - -		86	1	0
Profit, - - - - -		<u>£. 138</u>	5	6

The capital pays 13 *l.* *per cent.* from which it is observable, that the products I have supposed are below what they ought to be, to repay the farmer 13 *per cent.* being too low an interest upon improvements in husbandry, when so much is risked: But when a farmer views a tract of land with an eye to improve it, he should consider this point minutely, whether the land in question, when improved, will yield a produce sufficient to pay him good interest for his money. I do not pronounce 13 *per cent.* to be bad interest; but it is not equal to what ought to arise from improvements. It may be made without an equal risk by common farming, when a man expends such

such large sums of money upon another's property, which cannot, like stock, be carried away at the end of the lease, he certainly should make a greater profit than upon money employed in common methods, which is always returning, and can be thrown, at any warning, into fresh enterprises. Thus much for the comparison: but if we view it in respect to itself alone, 13 *per cent.* is no trifle; a farmer may be able to hire many such farms as this before us, or similar ones, that cannot get a profitable one that is already in a state of improvement. In such a situation, he should not let his time and money be idle, for fear of what is commonly called a *bad* farm, but contract his attention to a few acres, and improve them to their highest pitch; since he may, by such a method, make 13 *per cent.* on a calculation moderate in every respect; for the expences are minuted in their full extent: but the product may probably be higher than I have stated it.

The clearest way of stating the gentleman's account of this farm will be, to state the former totals, labour deducted, and

(187)

and then add 27 *per cent.* on the whole of that.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Total of 1st year,	996	13	0

27 *per cent.* on

245 <i>l.</i> labour,	66	3	0	<i>l.</i>	<i>s.</i>	<i>d.</i>
				1062	16	0

Interest,	-	-	-	53	2	0
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Total of 2d year,	376	0	10
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27 *per cent.* on

173 <i>l.</i> labour,	46	14	0			
				422	14	10

Interest,	-	-	-	74	4	0
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Total of 3d year,	454	4	4
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27 *per cent.* on

149 <i>l.</i> labour,	40	10	0			
				494	14	4

Interest,	-	-	-	98	18	0
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Total of 4th year,	410	11	4
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27 *per cent.* on

157 <i>l.</i> labour,	42	7	0			
				452	18	4

	<i>£.</i>	2659	7	6
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Total produce, as before,		726	8	0
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Total necessary to stock,	<i>£.</i>	1932	19	6
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Fourth year. *l.* *s.* *d.*

Expences,	-	-	-	452	18	4
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Produce,

Produce,	-	-	-	£. 544	0	0
Expences,	-	-	-	452	18	4
					91	1 8
Interest,	-	-	-	90	5	0
Profit,	-	-	-	£. 0	16	8

ANNUAL ACCOUNT.

<i>Expences.</i>			<i>l.</i>	<i>s.</i>	<i>d.</i>
Total,	-	-	320	13	6
27 per cent. on 115 l. labour,	-	-	31	1	0
			£. 351	14	6
<i>Produce.</i>			<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	-	-	545	0	0
Expences,	-	-	351	14	6
				193	5 6
Interest,	-	-	96	15	0
Profit,	-	-	£. 96	12	6

The capital pays 9 l. 9 s. per cent. no trifle to a gentleman; but it is here necessary to take a different view of the gentleman's profit on this farm: Suppose, when he has completed the improvement, he lets it, how will his profit stand then? To answer this question, we must draw up our account as follows:

Variation

Variation the seventh.

At the end of the fourth year,
 he will have expended, with the *l. s. d.*
 interest of the fourth, - 2792 6 6

And received of produce, 1270 8 0
£. 1521 18 6

From this we must deduct
 the product by the sale of his
 stock in trade.

6 Horses, 20 cows,
 and 3 sows: They *l. s. d.*
 cost 193 *l.* - 120 0 0
 Implements, cost
 87 *l.* 16 *s.* - 38 0 0

 158 0 0

The farm will then owe him, *£. 1363 18 6*

In the condition I have described, so well
 drained, ditched, paled, hedged, manured
 with manure unspread, sufficient to cover
 100 acres, at 14 loads *per* acre, with 25 acres
 of clover, and 25 of wheat, besides other
 tillage, ready for the tenant to enter upon,
 there can be no doubt of the farm bringing
 a noble rent. Such an one, in many parts
 of England, with which I am well ac-
 quainted, would let with the utmost faci-
 lity, on a long lease, at 2 *l.* an acre: For
 the

the advantages a tenant reaps from entering a farm in so perfect a state, outweighs, and that infinitely, an high rent; but instead of 1363 *l.* 18 *s.* 6 *d.* we call the sum 1500 *l.* and suppose the farm all laid down to grass (in which case that sum will be near the truth) there can then be no doubt of 2 *l.* The account will stand thus:

115 Acres, at 2 <i>l.</i>	-	£. 230 0 0
Old rent,	-	£. 57 10 0
Interest of 1500 <i>l.</i>	75 0 0	
		132 10 0
Annual profit,	-	97 10 0
Rent, at 2 <i>l.</i>	-	230 0 0
Old rent,	-	57 10 0
Improvement,	-	172 10 0
Which is 11 <i>l.</i> 9 <i>s.</i> per cent. on capital.		

Without laying down, and let at 1 *l.* 15 *s.* the account will be as follows:

115 Acres, at 1 <i>l.</i> 15 <i>s.</i>	-	£. 201 5 0
Old rent,	-	£. 57 10 0
Interest of 1500 <i>l.</i>	75 0 0	
		132 10 0
Annual profit,	-	£. 68 15 0
Rent, at 1 <i>l.</i> 15 <i>s.</i>	-	201 5 0
Old rent,	-	57 10 0
Improvement,	-	£. 143 15 0
Which is 9 <i>l.</i> 10 <i>s.</i> per cent. on capital.		

Let

Let at 1 *l.* 10 *s.* the account will be as follows:

115 Acres, at 1 <i>l.</i> 10 <i>s.</i>	-	£. 172 10 0
Old rent,	-	£. 57 10 0
Interest,	-	75 0 0
		132 10 0
Annual profit,	-	40 0 0
Rent, at 1 <i>l.</i> 10 <i>s.</i>	-	172 10 0
Old rent,	-	57 10 0
Improvement,	-	£. 115 0 0

Which is 7 *l.* 14 *s.* *per cent.* on capital.

I give this variation for the use of different countries, but shall myself calculate on 9 *l.* 10 *s.* *per cent.* being, as I apprehend, nearer the truth, or 11 *l.* 9 *s.* laid down to grass. The account merits no trivial attention; for we find, by continuing the tenant he makes but 9 *l.* 9 *s.* *per cent.*; whereas, by letting the farm, he acquires 9 *l.* 9 *s.* or 11 *l.* 11 *s.*: the first interest is open to chances, and dependent on contingencies, and to all those deductions arising from the inferiority of the gentleman to the farmer, which are unsusceptible of calculation; whereas the latter is sure, and open to none of these deductions. In a word, the difference is exceedingly great, and proves, that gentlemens most profitable husbandry in the improvement of bad lands,

lands, is not for their own farming, but to relet to others. This point, however, will be further discussed.

GENERAL RECAPITULATION OF THIS CHAPTER.

Sums requisite to stock the preceding farms.

N^o I. 430 Acres; 400 arable
and 30 grass; the soil clay or
loam, - - - - - l. s. d.

Ditto a gentleman, - - - - - 2175 15 4

N^o II. 530 Acres; 500 arable
and 30 grass; the soil clay or
loam, - - - - - 2276 16 4

Ditto a gentleman, - - - - - 2652 1 6

N^o III. 350 Acres arable;
the soil light enough for
turnips, - - - - - 2777 12 6

Ditto a gentleman, - - - - - 2655 10 7

N^o IV. 300 Acres; the soil
clay or loam; one third grass,
and two thirds arable, - - - - - 2747 9 7

Ditto a gentleman, - - - - - 1803 17 1

N^o V. 300 Acres; the soil
clay or loam; one third grass,
and two thirds arable; culti-

vated

vated on improved principles;		l.	s.	d.
cabbages in a course, -	2604	6	2	
N° VI. 400 Acres; all grass,	2756	0	0	
Ditto a gentleman, -	2772	4	0	
N° VII. 300 Acres, arable,				
laid down to grass -	2570	4	0	
Ditto a gentleman, -	2807	13	0	
N° VIII. 300 Acres; 280				
arable, and 20 grass arable;				
the soil light enough for				
turnips, and marled, chalked,				
or clayed, -	3631	5	10	
Ditto a gentleman, -	3856	3	10	
N° IX. 220 Acres; 200				
arable and 20 grass; the soil				
clay or loam; cultivated				
upon improved principles;				
cabbages and lucerne, -	3567	15	6	
N° X. 300 Acres; 280				
arable, and 20 grass; the soil				
light enough for turnips;				
cultivated on improved prin-				
ciples; carrots in a course,	3163	17	10	
N° XI. 115 Acres; 100				
arable, and 15 grass; the soil				
a poor, cold, flat loam,				
improved, -	1720	15	6	
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Annual Produce of these farms, expences paid.

N° I.	-	-	£. 593	15	2
	Ditto the gentleman,	-	491	14	2
N° II.	-	-	788	19	6
	Ditto the gentleman,	-	663	8	6
N° III.	-	-	435	1	11
	Ditto the gentleman,	-	343	2	11
N° IV.	-	-	290	11	11
	Ditto the gentleman,	-	226	12	11
N° V. Ditto,	-	-	621	2	10
N° VI.	-	-	676	0	0
	Ditto the gentleman,	-	660	0	0
N° VII.	-	-	544	5	0
	Ditto the gentleman,	-	534	6	0
N° VIII.	-	-	521	15	8
	Ditto the gentleman,	-	443	4	8
N° IX. Ditto,	-	-	1055	13	8
N° X. Ditto,	-	-	562	17	5
N° XI.	-	-	224	6	6
	Ditto the gentleman,	-	193	5	6
<i>Profit per cent. on these farms.</i>					
N° I.	-	-	£. 27	6	0
	Ditto the gentleman,	-	21	12	0
N° II.	-	-	29	14	0
	Ditto the gentleman,	-	23	18	0
N° III.	-	-	16	7	0
	Ditto the gentleman,	-	12	9	0
N° IV.	-	-			

N ^o IV.	-	-	16	1	0
Ditto the gentleman,	-	-	12	2	0
N ^o V. Ditto,	-	-	23	16	0
N ^o VI.	-	-	24	10	0
Ditto the gentleman,	-	-	23	16	0
N ^o VII.	-	-	21	3	0
Ditto the gentleman,	-	-	19	0	0
N ^o VIII.	-	-	14	7	0
Ditto the gentleman,	-	-	11	9	0
N ^o IX. Ditto,	-	-	29	11	0
N ^o X. Ditto,	-	-	17	15	0
N ^o XI.	-	-	13	0	0
Ditto the gentleman,	-	-	9	9	0

*Comparison between the gentleman and
farmer in their profits per cent. on
these farms.*

			l.	s.	d.
N ^o I. The farmer,	-	-	27	6	0
The gentleman,	-	-	21	12	0
Superiority of the former,	-	-	£. 5	14	0
N ^o II. The farmer,	-	-	29	14	0
The gentleman,	-	-	23	18	0
Superiority of the former,	-	-	£. 5	16	0
N ^o III. The farmer,	-	-	16	7	0
The gentleman,	-	-	12	9	0
Superiority of the former,	-	-	£. 3	18	0
N ^o IV. The farmer,	-	-	16	1	0
The gentleman,	-	-	12	2	0
First superior by	-	-	£. 3	19	0

N° VI. The farmer,	-	24	10	0
The gentleman,	-	23	16	0
First superior by	-	£. 0	14	0
N° VII. The farmer,	-	21	3	0
The gentleman,	-	19	0	0
First superior by	-	£. 2	3	0
N° VIII. The farmer,	-	14	7	0
The gentleman,	-	11	9	0
First superior by	-	£. 2	18	0
N° XI. The farmer,	-	13	0	0
The gentleman,	-	9	9	0
First superior by	-	£. 3	11	0

The progression of the farmer's farms in order of profit.

N° 2.	-	£. 29	14	0
1.	-	27	6	0
6.	-	24	10	0
7.	-	21	3	0
3.	-	16	7	0
4.	-	16	1	0
8.	-	14	7	0
11.	-	13	0	0

The progression of the gentleman's farms in order of profit.

N° 9.	-	£. 29	11	0
2.	-	23	18	0
6.	-	23	16	0
N° 5.	-			

N ^o 5.	-	£. 23 16 0
1.	-	21 12 0
7.	-	19 0 0
10.	-	17 15 0
3.	-	12 9 0
4.	-	12 2 0
8.	-	11 9 0
11.	-	9 9 0

Of the common farmer's farms, the most profitable is the 530 acres on a clay soil, which pays 29 *l.* 14 *s.* *per cent.* which is certainly very considerable. The great advantage of this farm over many of the same sort, less, results from the several parts of it being well proportioned to each other. The size of it reduces the price of management, and enables the occupier to keep a larger proportionable stock of cattle; both circumstances of no slight importance.

The second farm is the 430 acres of the same soil; which, being inferior to the other, is a fresh proof of the benefit of a due arrangement; for the soil is the same in both. These two farms, being superior to all the rest, speaks much in favour of the rich clay soil, in preference to others; but the common idea is contrary. It is supposed that

fortunes are seldom made in rich countries; which notion springs, I suppose, from the observation, that fortunes are made in poor ones; but this is not caused by any quality in the land, but from the farmers who occupy poor soils, being richer in general than those who cultivate rich ones; that is, the former are commonly thrown into great farms, and the latter into small ones; consequently, one set is rich, and the other poor; but these are adventitious circumstances, and not inherent in the land.

The third farm in this list, is the graze one. Such will always rank high; 24 per cent. on a capital, employed in a business so easy and sure as grazing, is a noble profit, and considering all circumstances, equal perhaps to an average of 28 or 30 per cent. on a tillage farm.

The fourth, is the farm laid down to graze; which is likewise very beneficial.

The fifth is the arable farm, light enough for turnips, the profit 16 l. 7 s. which is inferior to the arable clay one, 13 per cent. Many of my readers will think this somewhat strange; but that, I apprehend, results from

from turnip-land being oftener well managed than clay; for it is but in a few places that the husbandry of fallowing with beans is practised, but that of turnips is, on light land, general: so that, in the latter, the unprofitable practice of direct fallowing is banished, but not in the former, which makes a vast difference. But I know from my own experience, as well as the Kentish practice, that beans in drills are as good a preparation for barley on clay land, as turnips are on light soils; and the course of sowing clover with fresh barley, and the wheat upon the clover, I think, is more beneficial, than sowing wheat upon bean stubble, which excludes clover from the course. The difference between a mere fallow and an ameliorating fallow crop is prodigious. Hence the notion in common, that turnip land is more profitable than clay; which is a mere vulgar error. I apprehend light land no where triumphs more than in the marled parts of Norfolk, where the soil is a sandy loam, naturally rich, and the marle of a very fine, fat, soapy kind. Barley, it is supposed, delights in such soil; but I can name tracts

of clay country in Essex, that beat the produce of the best marled lands in Norfolk, even in *barley* hollow.

The next profitable farm in this list, is the clay one, one third grass and two thirds arable. I should have thought, previous to a calculation, that this would, on comparison with the rest, have turned out more profitable. It ranks here nearly on a par with the turnip-land farm.

The seventh is the light land, marled, chalked, or clayed, which yields a profit of better than 14 *per cent.* This is no trifle, but it is clear that a man had much better employ his money in land, that is already improved and naturally rich, than on soils that require very large disbursements of this nature. I am sensible, that I have many local prejudices to combat in the arrangement of farms, in respect of profit. A Norfolk man, for instance, may smile at seeing a light soil marled, ranked so low in this scale; but from whence results the great fortunes made by farming in Norfolk? Not from the superiority of their culture, though idly supposed the reason; but from two circumstances, the one local, the other

other general: *First*, From being peculiarly favoured in rent to such a degree, as having land worth 12 s. *per* acre, for 3 s. or 3 s. 6 d. the very amount of which, without husbandry, care, or attention, in a large farm and a long lease, is a fortune. The other circumstance, is the largeness of the farms, which rise to above 3000 acres of land: Great stocks are requisite for the culture of such; and in whatever business they are employed, the profit ought to be proportioned. Rich clays are commonly in small farms, and the farms necessarily poor; and these collateral circumstances are confounded by the vulgar with the inherent qualities of the soils, than which there cannot be a greater mistake. Accordingly, when exceptions are found, they prove the truth of this remark; for, in the Hundreds of Essex, where the clay is in *large* farms, the farmers are as rich, and richer than they are in Norfolk; and in Norfolk the *little* farmers are as mere beggars as they are in the stiffest clay. The general wealth or poverty of occupiers, in either case, does not therefore arise from the soil, but the size of the farms;

farms; consequently, such of my readers as think I mistake in these scales, should not found their ideas on any local circumstances, but consider the general state of the case. In these calculations, the clay soil appears most profitable, and I have no doubt of its really being so, when managed as well as the light one.

The last farm in profit, is the cold, wet loam improved, which pays 13 *per cent*. The inferiority of this to the rest, I apprehend, is owing much more to the smallness of the tract of land, than to the improvements then practised being unprofitable. In numerous cases, particularly when farms are managed in the common way, respecting crops, so much money may be expended upon the land, that it cannot possibly repay. This is not the case with the farm in question; for 13 *per cent*. is undoubtedly a large profit in itself, and small only on comparison with some other farms. The excess of expence can therefore be thought only to reduce, but not annihilate the profit; and the reduction might have no existence, if the proportion of land to money was different; for we
have,

have, in many of these farms, seen great variations in those of the same sort, and differing only in size. No one can, from this estimate, think the improvement of wet, cold, flat loams, an unprofitable business, as 13 *per cent.* is laying money out at no trifling interest. Indeed, my own experience, as well as reasoning on the matter, gave me very great reason to think the improvements peculiarly profitable.

Upon the whole it appears, that a man cannot, in husbandry, dispose of from 2 to 3000 *l.* as in the culture of good sound improved clay soils, the profit upon farming them is exceedingly great.

In the gentleman's scale of farms, the first is the 220 acres of clay, cultivated upon improved principles, totally in cabbages and lucerne. This farm pays 29 *l.* 11 *s.* *per cent.* the stock 3567 *l.* which yields an annual income of 1055 *l.* a more advantageous method of such a sum of money can scarcely be found. This capital, in trade or manufactures, would make no figure: It would be beat down to almost common interest, by the weight and power of superior stocks; but it is not so in agriculture.
Many

Many gentlemen, upon the credit of fortunes of between 3 and 4000 *l.* enter into trade, if by themselves, for a trifling benefit, besides hope; if with others, they are little better than drudges to others, whose only superiority lies in the weight of their purses; and, with the utmost submission and the greatest industry, where will they turn for greater profit? Here is above 1000 *l.* a year from a business, in extent so small as a couple of hundred acres, I may venture to say independent of the seasons *, all united in one point of attention. No market to attend, no baileys to employ, and in short, the whole management to be little more than a country amusement. Is it not astonishing, that a profession capable of such things, should have been so long slighted, and left only to the lowest of the people? The great profit of the farm in question, will be disputed by numbers, who have neither tried nor been eye-witnesses to the product of lucerne and cabbages

* It is no paradox to say, that a perfectly good farmer, cultivating the most profitable vegetables, is absolutely independent on the seasons, which in common are nothing but the bugbear of flovens.

under

under a complete culture, but such as have had experience in them will be of a different opinion.

The second farm in profit in the gentleman's scale, is the 530 acres of arable clay, which yields 23 *l.* 18 *s.* *per cent.*: But I must remind the reader, once more, to recollect the numerous circumstances which are unfavourable to a gentleman in arable farms, but which are of a nature unreducible to estimate. These would make a formidable appearance in an arable business of 550 acres, and be a great deduction from the apparent profit. A gentleman must undoubtedly give his whole time and attention up to such a farm: If ever he is absent, it must be for a very little while at once, unless he employs a bailey; he or his substitute must always be at home. Now a moment's consideration will tell us, to what an undiscovered amount a bailey may be a knave, when near 3500 *l.* a year goes through his hands in payments and receipts; and his master, from the very circumstance of employing him, either ignorant, or to some degree indolent, both equally fatal, and laying him open to deceit. I repeat this circumstance,

to

to remind the reader of the many disadvantages a gentleman labours under in arable farms, that he may make, in his own mind, such allowances in the profits, as to himself seems most just.

The third rank in the scale, is possessed by two farms, 300 acres clay soil, one-third grass, and two-thirds arable, the arable cultivated with cabbages in a course, and the 400 acres all grass. These farms each give a profit of 23*l.* 16*s.* *per cent.* which is considerable; but the grass one is to be preferred, for the numerous reasons so often given. It is more sure, subject to very few deductions unreducible to calculation, open to much less knavery, and much easier conducted, than arable farms.

The fourth farm, is the arable one, 430 acres on a clay soil: The profit from it is great, but subject, like the rest, to uncalculated objections.

The fifth, is the arable farm laid down to grass, which yields 19 *per cent.*; There can be no doubt of the real profit of this farm: Grass ones, in whatever form they appear, can never be attended with a balance on the wrong side of the account;
and

and it is a matter of no slight importance to a gentleman, to find, that when he cannot fix himself in a farm already in grass, that it will answer so well to hire an arable one, and lay it down to grass.

The sixth farm, is the arable one, cultivated upon improved principles, with carrots in a course, the profit 17 *l.* 15 *s.* *per cent.* which, although not equal to the preceding, is a very considerable profit; liable, however, to the same objections as other arable ones.

The seventh, is that of 350 acres, the soil light enough for turnips, yielding 12 *l.* 9 *s.* *per cent.* This is inferior to the same sort of farm, carrots substituted in the room of turnips, by 5 *l.* 6 *s.* *per cent.* which, upon the whole capital, for the change only of one crop, is very great, and requires no slight consideration in a gentleman, when he takes a farm before he determines on his management, that he may proportion his farm to his money, in such a manner as to be enabled to adopt the carrot, instead of the turnip culture, as he will more than pay the interest of his whole capital, by the difference in one-fourth of his arable land.

The

The eighth farm in this list, is the 300 acres, one third grass, and two thirds arable, the proportion of which is a beneficial one; but the 200 acres of arable must bring it, in a certain degree, within the disadvantages of arable farms.

The ninth, is the farm improved with marle, chalk, or clay; the amount of labour on which reduces the profit on it greatly.

Lastly, comes the wet, cold, poor, loamy soil improved, which yields a profit of no more than 9 *l.* 9 *s.* *per cent.*: But it is to be remembered, that if the gentleman, after improving, lets this farm, his profit is then greater.

It appears, upon the whole, from the result of this chapter, that farming is an extremely profitable business to a gentleman, when he throws his attention to such farms as are adapted to his situation in life. By reviewing the table of comparison between him and the common farmer, we find that the latter possesses, in every farm, a superiority. From whence it surely appears, that he should attach himself to such as come nearest the farmer, or to those of an improved culture, in which he can equal him.

The

The difference *per cent.* between them in common farms rises from 143. to 5 l. 16 s. The first is so small a variation, that it may be called almost an equality; consequently, a most beneficial farm for a gentleman. This is the grass one.

The next approach made by the gentleman to the farmer, is in that laid down to grass, which are strong proofs of the great advantage of these farms to gentlemen. The difference between them and the rest is considerable; they are chiefly tillage-farms.

But in the improved culture, the gentleman, upon an average, more than equals the farmer, notwithstanding the charge of 27 *per cent.* upon all his labour: this shews, therefore, that gentlemen must either farm upon improved principles, or be content to occupy grass-land; for although profit remains upon the account, and that great too, of several arable farms, yet there are such numerous deductions to be made from them, which cannot be reduced to estimate, that it is by no means adviseable for him to consider them in the same light.

CHAP. XXV.

*Of the most advantageous method of disposing
of about 5000l. in farming.*

THIS chapter, like many of the pre-
ceding, requires me to take a lati-
tude in the sums of stock. It is impossible,
in small sums, to make them all square
alike, much less in large ones.

N^o 1.

*Eleven hundred acres arable, the soil clay
or loam.*

The thousand acres I suppose to be arable,
the hundred grass.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 1100 acres, at 15 s. -	825	0	0
Tythe, rates, &c. &c. &c. at 8 s. -	330	0	0
	<u>£. 1155</u>	0	0

Live stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
32 Horses, - - -	480	0	0
130 Cows, - - -	650	0	0
20 Sows, - - -	30	0	0
400 sheep, - - -	240	0	0
	<u>£. 1400</u>	0	0

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<i>Implements.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
A broad-wheeled waggon,	-	70	0	0
Five common ditto,	-	125	0	0
Harnes,	-	50	0	0
Eight carts,	-	80	0	0
Eighteen ploughs,	-	28	7	0
Harrows and rollers,	-	15	0	0
100 Sacks,	-	15	0	0
Screens, bushels, forks, lines, &c.	-	40	0	0
Dairy furniture,	-	40	0	0
		<u>£. 469</u>	<u>7</u>	<u>0</u>

<i>Seed and tillage.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Four earths on 250 acres of	-	1	5	0
wheat-land,	-	200	0	0
Seed,	-	125	0	0
Sowing,	-	6	5	0
Water-furrowing,	-	12	10	0
Three earths on 250 acres of	-	1	5	0
spring-corn land,	-	150	0	0
Seed,	-	125	0	0
Sowing,	-	8	2	6
Water-furrowing,	-	6	5	0
Seed clover,	-	50	0	0
Sowing,	-	3	2	6
Harrowing,	-	12	10	0
Rolling,	-	1	5	0
Carry over,	-	<u>£. 695</u>	<u>0</u>	<u>0</u>

Brought over, £. 695 0 0		
Two earths on 250 acres of bean-		
land, - - -	100	0 0
Seed, - - -	100	0 0
Sowing, - - -	12	10 0
Water-furrowing, - - -	6	5 0
	<u>£. 913</u>	<u>15 0</u>

Labour.

One earth on 250 acres of	1.	s.	d.
wheat-land, - - -	12	10	0
Sowing, - - -	3	2	6
Harrowing, - - -	3	2	6
Water-furrowing, - - -	12	10	0
Weeding, - - -	12	10	0
Reaping and harvesting, at 6 s.	75	0	0
Thrashing, 3 qrs. per acre, 750			
qrs. at 2 s.	75	0	0
Carrying out, 20 qrs. at a time,			
38 journeys, - - -	3	16	0
Three earths on 250 acres of			
barley and oat land, - - -	37	10	0
Sowing, - - -	3	2	6
Ditto clever, - - -	3	2	6
Harrowing, - - -	3	2	6
Water-furrowing, - - -	12	10	0
Mowing and harvesting, at 4 s.	50	0	0
Carry over, £. 306	18	6	
Threshing			

(213)

Brought over, £. 306 18 6

Thrashing, 4 qrs. per acre, 1000

qrs. at 1 s. - - - - 50 10 0

Carrying out 178 acres of barley,

712 qrs. 30 at a time, 23

journeys, - - - - 2 6 0

Three earths on 250 acres of

bean-land, - - - - 37 10 0

Sowing, - - - - 12 10 0

Water-furrowing, - - - - 6 5 0

Hand-hoeing once, at 6 s. - - 75 0 0

Horse-hoeing thrice, at 6 s. - 56 5 0

Reaping and harvesting, at 7 s. - 87 10 0

Thrashing, 3 qrs. per acre, 750

qrs. at 1 s. - - - - 37 10 0

Carrying out, 20 qrs. at a time,

38 journeys, - - - - 3 16 0

Chopping and raking 250 acres

of wheat-stubble, at 1 s. 6 d. 18 15 0

Carting home, 10 men, 8 days, 4 0 0

Ditching 800 perches, - - - 40 0 0

Carting 2400 loads of earth to

farm-yard, 60 per day, 40

days, at 18 s. 9 d. - - - 37 10 0

162 Head of cattle, at 12 loads

each, 1944 loads mixing with

Carry over, £. 775 15 6

P 3 2400

Brought over,	£. 775	15	6
2400 of earth; in all 4344,			
at 1 d.	-	-	18 8 0
Carting 4344 loads, and spreading, 60 per day, 72 days, at 12 s. 9 d.	-	-	45 18 0
Mowing, making, and cocking 100 acres of grafs once, and 30 acres of clover twice,	-	-	40 0 0
Carting and stacking 12 days of 20 men,	-	-	15 0 0
Thatching,	-	-	2 10 0
Cutting chaff,	-	-	5 0 0
Carting faggots,	-	-	1 10 0
Sundry work concerning cattle, &c. a man a year,	-	-	24 0 0
Sundry small unspecified articles	-	-	9 0 0
	£. 936	5	6

Sundry articles.		l.	s.	d.
Shoeing,	-	19	4	0
Wear and tear,	-	100	0	0
Market expences,	-	10	0	0
Cash in hand,	-	200	0	0
	£. 329	4	0	
Total,	£. 5197	11	6	

ANNUAL

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	1155	0	0
400 Sheep,	- - -	240	0	0
Seed for 250 acres of wheat, 250 of barley and oats, 250 of beans, and 250 of clover,	- - -	400	0	0
Labour,	- - -	936	5	6
Sundry articles,	- - -	129	4	0
		<u>£. 2860</u>	<u>9</u>	<u>6</u>

<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
250 Acres of wheat, 3 qrs. per acre, 750 qrs. at 2 l.	- - -	1500	0	0
178 Acres of barley, 4 qrs. per acre, 712 qrs. at 16 s.	- - -	569	12	0
250 Acres of beans, 3 qrs. per acre, 750 qrs. at 1 l. 12 s.	- - -	1200	0	0
130 Cows,	- - -	650	0	0
400 Sheep,	- - -	480	0	0
		<u>4399</u>	<u>12</u>	<u>0</u>
Expences,	- - -	2860	9	6
		<u>1539</u>	<u>2</u>	<u>6</u>
Interest,	- - -	259	17	0
Profit,	- - -	<u>£. 1279</u>	<u>5</u>	<u>6</u>

The capital pays 29 l. 12 s. per cent.

The gentleman's account is as follows:

(216)

	Stock.	l.	s.	d.
Rent, &c.	-	1155	0	0
Live Stock,	-	1400	0	0
Implements,	-	463	7	0
Seed and tillage,	-	913	15	0
Labour,	£. 936	5	6	
27 per cent.	-	252	14	0
		<u>1188</u>	19	6
Sundry articles,	-	329	4	0
Total,	-	£. 5450	5	6

ANNUAL ACCOUNT.

	Expences.	l.	s.	d.
Rent, &c.	-	1155	0	0
400 Sheep,	-	240	0	0
Seed,	-	400	0	0
Labour,	-	1188	19	6
Sundry articles,	-	129	4	0
		<u>£. 3113</u>	3	6
	Produce.	l.	s.	d.
The same,	-	4399	12	0
Expences,	-	3113	3	6
		<u>1286</u>	8	6
Interest,	-	272	10	0
Profit,	-	£. 1013	18	6

The capital pays 23 l. 11 s. 6 d. per cent.

N^o 2.*Variation the first.*

Six hundred acres, soil clay or loam; one third grass and two-thirds arable, cultivated on improved principles; cabbages in a course.

In this culture the cabbages supply the place of the beans; the rest of the course is the same, viz. 1. Cabbages; 2. Barley; 3. Clover; 4. Wheat.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 600 acres, at 15 s. -	450	0	0
Tythe, rates, &c. &c. at 8 s.	180	0	0
	<u>£. 630</u>	0	0

Live stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
20 Horses, - - -	300	0	0
200 Cows, - - -	1000	0	0
160 Steers, - - -	800	0	0
40 Ditto, - - -	280	0	0
20 Sows, - - -	26	0	0
200 Sheep, - - -	120	0	0
	<u>£. 2526</u>	0	0

Implements.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
A broad-wheeled waggon, -	70	0	0
Three narrow-wheeled ditto,	75	0	0
	<u>£. 145</u>	0	0
Carry over,			
Harnes,			

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Brought over,	£. 145	0	0
Harnes,	40	0	0
6 Carts,	60	0	0
12 Ploughs,	18	18	0
4 Harrows,	8	0	0
3 Rollers, one for graze,	12	0	0
80 Sacks,	12	0	0
Screens, bushels, ropes, lines,			
forks, rakes, wheel-barrows,			
ladders, &c. &c.	40	0	0
Dairy furniture,	50	0	0
	£. 385	18	0

Seed and tillage.

Four earths on 100 acres of	l. s. d.		
wheat-land,	80	0	0
Seed,	50	0	0
Sowing,	2	10	0
Water-furrowing,	5	0	0
Three earths on 100 acres of			
spring-corn,	60	0	0
Seed,	50	0	0
Sowing,	1	5	0
Harrowing,	5	0	0
Water-furrowing,	5	0	0
Clover-seed,	20	0	0
Sowing,	1	5	0
Seed for 100 acres of cabbages,	25	0	0
	£. 305	0	0

Labour.

Labour.

One earth on 100 acres of wheat-land,	15 0 0
Sowing,	1 5 0
Harrowing,	1 5 0
Water-furrowing,	5 0 0
Weeding,	5 0 0
Reaping,	30 0 0
Thrashing, 4 qrs. per acre, 400 qrs. at 2 s.	40 0 0
Carrying out, 20 at a time, 20 journeys,	2 0 0
Three earths on 100 acres of barley and oat land,	15 0 0
Sowing,	1 5 0
Ditto clover,	1 5 0
Harrowing,	1 5 0
Water-furrowing,	5 0 0
Rolling,	0 10 0
Mowing and harvesting, at 4 s.	20 0 0
Thrashing, 5 qrs. per acre, 500 qrs. at 1 s.	25 0 0
Carrying out 64 acres of barley, 320 qrs. 30 at a time, 10 journeys,	1 0 0
Five earths on 100 acres of cabbage-land,	25 0 0
Carry over,	£. 184 15 0
Digging	

Brought over,	£. 184	15	0
Digging the seed-bed, and sowing,	1	10	0
Planting, at 5 s.	25	0	0
Four horse-hoeings, at 6 d.	10	0	0
Two hand-hoeings, at 8 s.	40	0	0
Cutting and carting, at 5 s.	25	0	0
Chopping, raking, and carting			
100 acres of stubble,	9	5	0
Ditching 800 perches,	40	0	0
Carting 2400 loads to farm-			
yard, 60 per day, 40 days, at 1 s.	40	0	0
270 Head of cattle, 3240 loads			
mixing with 2400; in all			
5640 loads, at 1 d.	23	10	0
Carting 5640 loads, 60 per day,			
94 days, at 14 s.	65	16	0
Mowing, making, and cocking			
80 acres of grass,	20	0	0
Carting ditto, 8 days, of 14 men,	7	0	0
Thatching,	1	10	0
Cutting chaff,	3	6	8
Carting faggots,			
Sundry labour concerning cattle;			
a man,	24	0	0
Sundry small-unspecified articles;			
a boy,	9	0	0
	530	12	8
27 per cent,	143	2	0
	£. 673	14	8
			Sundry

<i>Sundry articles.</i>		<i>l. s. d.</i>
Shoeing, - - -		12 0 0
100 Loads of straw, - - -		80 0 0
Wear and tear, - - -		80 0 0
Market expences, - - -		8 0 0
Cash in hand, - - -		200 0 0
		<u>£. 380 0 0</u>
Total, - - -		<u>£. 490 12 8</u>

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l. s. d.</i>
Rent, &c. has, - - -		630 0 0
160 Steers, - - -		800 0 0
40 Ditto, - - -		280 0 0
200 Sheep, - - -		120 0 0
Seed for 100 acres of wheat, 100		
of barley and oats, 100 of		
clover, and 100 of cabbages, 145		0 0
Labour, - - -		673 14 8
Sundries, - - -		180 0 0
		<u>£. 2828 14 8</u>

<i>Produce.</i>		<i>l. s. d.</i>
100 Acres of wheat, 400 qrs.		
at 2 l.		800 0 0
64 Acres of barley, 320 qrs.		
at 16 s.		256 0 0
160 Steers, - - -		1440 0 0
Carry over, - - -		<u>£. 2496 0 0</u>
40 Steers,		

	Brought over,	£. 2496	6	8
40 Steers,	- - - -	560	0	0
200 Cows,	- - - -	1000	0	0
200 Sheep,	- - - -	240	0	0
		<u>4296</u>	0	0
Expences,	- - - -	2828	14	8
		<u>1467</u>	5	4
Interest	- - - -	845	0	0
Profit,	- - - -	£. 1222	5	4

The capital pays 30 *l* per cent. profit, which is very considerable, and proves, if any thing can, (the premisses being allowed) that cabbages introduced in a course on clay lands, are a vast improvement. The foundation of all good husbandry is the keeping great stocks of cattle for manuring of the lands; the clay farms are, in the common management, vastly deficient in this material point; but we find, the introduction of cabbages will give them the wall even of their turnip brethren.

N^o 3.

Variation the second.

Seven hundred acres, all grass.

Stock. - Rent, &c.	<i>l. s. d.</i>
Of 700 acres,	700 0 0
Tythe, rates, &c. at 8 <i>s.</i>	280 0 0
	<u>£. 980</u>
	<i>Live</i>

(223)

<i>Live Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
2 Horses,	- - - -	30	0	0
700 Steers,	- - - -	3500	0	0
100 Sheep,	- - - -	60	0	0
		<u>£. 3590</u>	0	0

<i>Implements.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Two small three-wheeled carts,	- - - -	14	0	0
Harnes,	- - - -	3	0	0
Sundry small articles,	- - - -	20	0	0
		<u>£. 37</u>	0	0

<i>Labour.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
500 Perches of ditching, carting,	- - - -	75	0	0
and spreading, at 3 s.	- - - -		0	0
Sundry small articles,	- - - -	10	0	0
		<u>£. 85</u>	0	0

<i>Sundry articles.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear,	- - - -	4	0	0
Market expences,	- - - -	2	0	0
Cash in hand,	- - - -	100	0	0
		<u>106</u>	0	0

Total,	- - - -	<u>£. 4798</u>	0	0
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ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	- - - -	980	0	0
700 Steers,	- - - -	3500	0	0
100 Sheep,	- - - -	60	0	0
Carry over,	- - - -	<u>£. 4540</u>	0	0
Labour,				

	Brought over,	£. 4540	0	0
Labour,	- - - -	85	0	0
Sundry articles,	- - - -	6	0	0
		<u>£. 4631</u>	0	0
	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
700 Steers, at 8 l. 5 s.	- - - -	5775	0	0
100 Sheep,	- - - -	150	0	0
		<u>5925</u>	0	0
Expences,	- - - -	<u>4631</u>	0	0
		1294	0	0
Interest,	- - - -	231	11	0
Profit,		<u>£. 1062</u>	9	0

The capital pays 27 l. 19 s. per cent.
The gentleman's account is as follows:

	<i>Stock.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - - -	980	0	0
Live stock,	- - - -	3590	0	0
Implements,	- - - -	37	0	0
Labour,	- - - -	£. 85	0	0
27 per cent.	- - - -	22	19	0
		<u>107</u>	19	0
Sundry articles,	- - - -	106	0	0
Total,	- - - -	<u>£. 4820</u>	19	0

ANNUAL ACCOUNT.

	<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	- - - -	980	0	0
700 Steers,	- - - -	3500	0	0
Carry over,	- - - -	<u>£. 4480</u>	0	0
		100 Sheep,		

Brought over,	£. 4480	00
100 Sheep,	60	00
Labour,	107	19 0
Sundry articles,	6	00
	£. 4653	19 0

	Produce.	l.	s.	d.
The same,		5925	00	0
Expences,		4653	19	0
		1271	1	0
Interest,		241	1	0
Profit,		£. 1030	00	0

The capital pays 26-l. 7 s. per cent.

N^o 4.

Variation the third.

Five hundred acres arable, the soil light enough for turnips, and marled, chalked, or clayed.

Four hundred and sixty acres I suppose to be arable, and forty grass. I reckon the rent at 5 s. an acre; that is 2 s. less than in former farms of the same sort, which I think is a proper deduction on account of the quantity. Such soils that require expensive improvements, always let at a lower rate in large than in small quantities.

<i>Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
<i>Rent, &c.</i>				
Rent of 500 acres, at 5 s.	-	125	0	0
Tythe, rates, &c. &c. at 8 s.	-	50	0	0
		<u>£. 175</u>	0	0

<i>Live Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
16 Horses,	-	240	0	0

<i>Implements.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
A broad-wheeled waggon,	-	70	0	0
Three narrow-wheeled ditto,	-	75	0	0
Harness,	-	35	0	0
Six carts,	-	60	0	0
Ten ploughs,	-	15	15	0
Three harrows,	-	7	0	0
Three rollers,	-	10	0	0
80 Sacks,	-	12	0	0
Screens, bushels, &c. &c. &c.	-	30	0	0
Dairy furniture,	-	20	0	0
		<u>£. 334</u>	15	0

<i>Tillage.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Three earths on 115 acres,	-	69	0	0

<i>Labour.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Four earths on 345 acres,	-	69	0	0
Mowing and making 20 acres of grass,	-	5	0	0

Carry over,	£. 74	0	0
	Carting		

Brought over,	£. 74	0	0
Carting and stacking,	2	10	0
Sundry small articles,	10	0	0
	<u>£. 86</u>	10	0

Sundry articles.

Marling, chalking, or claying			
460 acres, at the rate of 100			
loads per acre, at 4 l. per acre,	l.	s.	d.
including all expences,	184	0	0
144 Qrs. of oats,	93	12	0
Straw cut into chaff,	15	0	0
12 Tons of hay,	30	0	0
Shoeing, and wear and tear,	60	0	0
Cash in hand,	200	0	0
	<u>2238</u>	12	0
Total, - - -	<u>£. 3143</u>	17	0

Second year.

Rent, &c.	£. 175	0	0
60 Cows,	£. 300	0	0
8 Sows,	£. 12	0	0
230 Heifers or steers,	£. 1150	0	0
120 Sheep,	£. 72	0	0
Seed for 115 acres of wheat,			
115 of spring-corn, 115 of			
clover, and 115 of turnips,	140	17	0

Q 2

Labour.

Labour.

One earth on 115 acres of wheat-	<i>£</i>	<i>s.</i>	<i>d.</i>
land, - - -	5	15	0
Sowing, - - -	1	8	9
Water-furrowing, - - -	1	8	9
Harrowing, - - -	0	14	3
Reaping and harvesting, at 4 s.	23	0	0
Thrashing, 5 qrs. <i>per</i> acre (a two			
years fallow) 575 qrs. at 2 s.	57	10	0
Carrying out, 20 at a time, 28			
journeys, - - -	2	16	0
Three earths on 115 acres of			
spring-corn land, - - -	17	5	0
Sowing, - - -	1	8	9
Ditto clover, - - -	1	8	9
Water-furrowing, - - -	1	8	9
Harrowing, - - -	0	14	3
Rolling, - - -	0	7	0
Mowing and harvesting, at 4 s.	23	0	0
Thrashing, 4 qrs. <i>per</i> acre, 460			
qrs. at 1 s. - - -	23	0	0
Carrying out 316 qrs. 30 at a			
time, 11 journeys, - - -	1	2	0
Mowing, making, and carting			
20 acres of grass - - -	7	10	0
Four earths on 115 acres of			
turnip-land, - - -	23	0	0
Carry over, <i>£</i> .	192	17	3
Sowing,			

Brought over,	£.	192	17	3
Sowing,	-	-	1	8 9
Hand-hoeing twice, at 7 s.	-	40	5	0
Drawing and carting home,				
at 7 s. 6 d.	-	-	43	2 6
Chopping and raking 115 acres				
of stubble,	-	-	8	12 6
Carting home,	-	-	2	5 0
Ditching 400 perches, at 9 d.	-	15	0	0
Carting 1000 loads of marle to				
farm-yard, 60 per day, 16				
days, at 17 s. 6 d.	-	-	14	10 0
300 Head of cattle, at 12 loads,				
3600 loads mixed with 1000				
of marle, 4600, at 1 d.	-	19	13	4
Carting 4600 loads, 60 per day,				
77 days, at 15 s.	-	57	15	0
Cutting chaff,	-	-	2	10 0
Sundry articles concerning cattle,				
to the amount of a man a year,	-	24	0	0
Sundry small unspecified articles ;				
a boy,	-	-	9	0 0

£. 430 9 4

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear,	60	0	0
Market expences,	4	0	0
Straw,	70	0	0
	134	0	0

Total, - £. 2414 6 4

Q3

First

(230)

Brought over,	£. 2414	6	4
First year,	-	-	3143 17 0
Interest,	-	-	157 3 0
Total necessary to stock this farm,	-	-	<u>£. 5715 6 4</u>

ANNUAL ACCOUNT.

Expences.

	l.	s.	d.
Rent, &c.	175	0	0
230 Heifers, &c.	1150	0	0
120 Sheep,	72	0	0
Seed,	140	17	0
Labour,	430	9	4
Sundry articles,	134	0	0
	<u>£. 2102</u>	<u>6</u>	<u>4</u>

Produce.

	l.	s.	d.
115 Acres of wheat, $3\frac{1}{2}$ qrs. per acre, $402\frac{1}{2}$ qrs. at 2l.	805	0	0
316 Qrs. of barley, at 16s.	252	16	0
60 Cows,	300	0	0
230 Fat beasts,	1610	0	0
120 Sheep,	144	0	0
	<u>3111</u>	<u>16</u>	<u>0</u>
Expences,	2102	6	4
	<u>1009</u>	<u>9</u>	<u>8</u>
Interest,	285	15	0
Profit,	<u>£. 723</u>	<u>14</u>	<u>8</u>

The

The capital pays 17 $\frac{1}{2}$ 13 s. per cent.

The gentleman's account is as follows:

	Stock.	l.	s.	d.
Rent, &c.	- - -	175	0	0
Live stock,	- - -	240	0	0
Implements,	- - -	334	15	0
Tillage,	- - -	69	0	0
Labour,	- £. 86	10	0	
27 per cent.	- - -	23	4	0
			109	14 0

Sundry articles, £. 2238 12 0

Of this 1840 l.

is marling, suppose

1000 l. of this is la-

bour, 27 per cent. is 270 0 0

2508 12 0
£. 3437 1 0

	Second year.	l.	s.	d.
Rent, &c.	- - -	175	0	0
60 Cows,	- - -	300	0	0
8 Sows,	- - -	12	0	0
230 Steers,	- - -	1150	0	0
120 Sheep,	- - -	72	0	0
Seed,	- - -	140	17	0
Labour,	- £. 430	9	4	
27 per cent.	- - -	116	2	0
			546	11 4

8 4 11 4
Carry over, £. 2396 8 4

Q 4 Sundry

Brought over,	£. 2396	8	4
Sundry articles,	134	0	0
	2530	8	4
First year,	3437	11	0
Interest,	170	17	0
Total necessary to stock,	£. 6139	6	4

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	175	0	0
Heifers and sheep,	- -	1222	0	0
Seed,	- -	140	17	0
Labour,	- -	546	11	4
Sundry articles,	- -	134	0	0
		£. 2218	8	4
<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	- -	3111	16	0
Expences,	- -	2218	8	4
		893	7	8
Interest,	- -	306	19	0
Profit,	- -	£. 586	8	8

The capital pays 14 *l.* 10 *s.*

N^o 5.

Variation the fourth.

Four hundred and forty acres arable, the soil clay or loam, cultivated upon improved principles; cabbages and lucerne.

The forty acres I suppose to be grass near the house for convenience, the rest is occupied

pied by only two crops, cabbages and lucerne, proportioned as in the last chapter.

Stock.

Rent, &c. *l. s. d.*

Of 440 acres, at 15 s. 380 0 0

Tithe, rates, &c. &c. &c. 132 0 0

£. 462 0 0

Live stock. *l. s. d.*

12 Horses, 180 0 0

100 Cows, 500 0 0

10 Sows, 12 0 0

£. 692 0 0

Implements. *l. s. d.*

Two carts, 24 0 0

Six ploughs, 9 9 0

Harness, 20 0 0

Harrows, 7 0 0

Dairy furniture, 100 0 0

Sundry small articles, 30 0 0

£. 190 9 0

Seed and tillage.

Three earths on 100 acres fallow *l. s. d.*

for wheat, but not sown, 60 0 0

Seed for 100 acres of lucerne,

at 6 s. 30 0 0

Ditto for 20 acres of cabbages, 3 4 0

£. 93 4 0

Labour.

<i>Labour</i>		
Three earths on 100 acres of	1	s. d.
lucerne-land,	15	0 0
Harrowing,	0	16 8
Drilling, at 6 d.	2	10 0
Hand-hoeing four times, at 6 s.	120	0 0
Cutting 3 times, at 1 s. 6 d.	22	10 0
Raking together, loading, and carting home, at 1 s. 6 d.	22	10 0
Five earths on 20 acres of cabbage- land,	5	0 0
Digging the feed-bed, sowing, &c.	0	5 0
Planting, at 5 s.	5	0 0
Four horse-hoeings, at 6 d.	2	0 0
Two hand-hoeings, at 8 s.	8	0 0
Cutting and carting, at 5 s.	5	0 0
Six earths on 280 acres of fallow,	84	0 0
Mowing, making, carting, and stacking 24 acres of grass,	9	8 0
Sundry small articles of work, to the amount of a man a year,	24	0 0
	325	19 8
27 per cent.	88	0 0
	£. 413	19 8

Sundry

Sundry articles.

A drill plough,	£. 8	0	0	
Refold for,	-	4	0	0
				<u>4 0 0</u>
Straw cut into chaff,	-	-	8	0 0
108 Qrs. of oats, at 13 s.	-	-	70	4 0
Shoeing, and wear and tear,	-	-	40	0 0
Forty loads of straw,	-	-	30	0 0
				<u>£. 152 4 0</u>
Total,	-	-	£. 2003	16 8

Second year.

Rent, &c.	-	-	£. 462	0 0
200 Cows,	-	-	£. 1000	0 0
Seed for 150 acres of lucerne,	-	-	£. 45	0 0
Ditto for 60 acres of cabbages,	-	-	£. 9	12 0

Labour.

Three earths on 150 acres of			l.	s.	d.
lucerne-land,	-	-	22	10	0
Drilling,	-	-	3	15	0
Hand-hoeing four times, at 6 s.	-	-	180	0	0
Cutting 3 times, at 1 s. 6 d.	-	-	33	15	0
Raking together, loading, and					
carting home,	-	-	33	15	0
Three earths on 60 acres of					
cabbage-land,	-	-	9	0	0

Carry over, £. 282 15 0

Brought over, £.	282	15	0
Digging the seed-bed, sowing, &c.	0	12	0
Planting, at 5 s.	-	15	0 0
Four horse-hoeings, at 6 d.	-	6	0 0
Two hand-hoeings at 8 s.	-	24	0 0
Cutting and carting, at 5 s.	-	15	0 0
Two hand-hoeings of the 100	-		
—acres of lucerne,	-	60	0 0
Four horse-hoeings, at 6 s.	-	10	0 0
Four cuttings, at 1 s. 6 d.	-	30	0 0
Raking together, loading, and			
carting, at 1 s. 6 d. four times,	-	30	0 0
900 Perches of ditching,	-	15	0 0
Carting 900 loads of earth to			
farm-yard, 20 per day, 44			
days, at 6 s. 3 d.	-	13	15 0
Mixing 900 of earth with 1100			
of dung, 2000 in all, at 1 d.	-	8	6 8
Carting and spreading 2000			
loads, 20 per day, 100 days,			
at 4 s. 3 d.	-	21	5 0
20 Acres of hay,	-	7	0 0
Sundry articles,	-	01	0 0
		548	13 8
27 per cent.	-	147	19 0
		£. 696	12 8

Sundry

<i>Sundry articles.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Straw cut into chaff,		8	0	0
108 Qrs. of oats,		70	4	0
80 Loads of straw,		70	0	0
Shoeing, and wear and tear,		40	0	0
		<u>£. 188</u>	<u>4</u>	<u>0</u>
Total,		<u>£. 2401</u>	<u>8</u>	<u>8</u>

Third year.

Rent, &c.		£. 462	0	0
450 Cows,		£. 2250	0	0
25 Sows,		£. 30	0	0
Seed for 150 acres of cabbages,		£. 22	10	0

Labour.

Two hand-hoeings of 250 acres		<i>l.</i>	<i>s.</i>	<i>d.</i>
of lucerne, at 6 s.		150	0	0
Four horse-hoeings, at 6 s.		25	0	0
Four cuttings, at 1 s. 6 d.		75	0	0
Raking together and carting,				
at 1 s. 6 d.		75	0	0
Four earths on 150 acres of				
cabbages,		30	0	0
Digging the seed-bed and sowing,		1	10	0
Planting, at 5 s.		37	10	0
Four horse-hoeings, at 6 s.		15	0	0
Two hand-hoeings, at 8 s.		60	0	0
Carry over,		£. 469	0	0
Cutting				

Brought over,	£. 469	0	0
Cutting and carting, at 5 s.	37	10	0
400 Perches of ditching,	20	0	0
Carting 1200 loads of earth to farm-yard, 30 days, at 12 s. 6 d.	18	15	0
Mixing 1200 loads with 4000 of dung, 5200, at 1 d.	21	13	4
Carting 5200 loads, and spread- ing 130 days, at 8 s. 6 d.	55	5	0
Cutting chaff, - - -	1	13	4
Mowing, making, carting, and stacking 40 acres of hay, - -	14	0	0
Sundry articles relative to cattle, and small unspecified ones ; a man,	24	0	0
	661	16	8
27 per cent. - - -	178	14	0
	£. 840	10	8

Sundry articles.	l.	s.	d.
Shoeing, and wear and tear,	40	0	0
Oats, - - -	70	4	0
130 Loads of straw, - - -	100	0	0
Cash in hand, - - -	150	0	0
	£. 360	4	0

Total,	£. 3965	4	8
			First

First year's expence, - - - £. 2003 16 8

Interest, - - - - - 100 3 0

Second year's expence, - - - 2401 8 8

Interest, - - - - - 1200 1 0

Third year's expence, - - - 3965 4 8

£. 8590 14 0

Produce.

First year. - - - - - £. s. d.

100 Cows, - - - - - 500 0 0

Second year.

300 Cows, - - - - - 1500 0 0

£. 2000 0 0

Total expence, - - - £. 8590 14 0

— Produce, - - - 2000 0 0

Total necessary to stock this

farm, - - - £. 6590 14 0

8 01 0000

ANNUAL ACCOUNT.

Expences. - - - - - £. s. d.

Rent, &c. - - - - - 462 0 0

Seed, - - - - - 22 10 0

Labour, - - - - - 840 10 8

Sundries, - - - - - 210 4 0

£. 1535 4 8

8 4 200000

Produce.

8 4 200000

8000	Produce.	2214	15	4
750 Cows,		3750	0	0
Expences,		1535	4	8
		2214	15	4
Interest,		329	10	0
Profit,		£. 1885	5	4

The capital pays 33 *l.* 12 *s.* *per cent.* The reader, before he condemns such great profit, should consider the vast expence of the culture, and most uncommon manuring. I should remark, (though it may perhaps not be thought to want explanation) that the 5 *l.* profit *per cow*, supposes *all* expences paid but those of food.

This farm is a fresh and very striking proof of the great profit of farming to gentlemen, when they attend to such farms as are proper for them. An income of 2200 *l.* a year from a capital of 6600 *l.* is such a profit as they will scarcely meet with in any other profession; and such an one as with prudence cannot fail (if the farm is properly situated for the purpose) of raising a very large fortune. Suppose the occupier lives upon 885 *l.* a year, and annually throws 1000 *l.* into business; this
distribution

distribution supposes the capital borrowed, and the interest paid. Were not these calculations extended to too great a bulk already, I could soon minute the profit of such a progression of stock, which would, in a few years, become vastly considerable, and yield a profit of many thousand pounds a year.

N^o 6.

Variation the fifth.
Three hundred acres arable, the soil a poor, cold, wet loam; improved.

Forty acres I suppose to be grass near the house for convenience, the 260 acres arable.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Of 300 acres, at 8 s.	120	0	0
Tythe, rates, &c. &c. at 8 s.	48	0	0
	<u>£. 168</u>	<u>0</u>	<u>0</u>

Live stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
18 Horses,	270	0	0

Implements.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
A broad-wheeled waggon,	70	0	0
Three narrow ditto,	75	0	0
Four carts,	40	0	0
Carry over,	<u>£. 185</u>	<u>0</u>	<u>0</u>

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R

Harness,

Brought over,	£. 185	0	0
Harness,	40	0	0
Nine ploughs,	14	3	6
Three harrows,	7	10	0
Rollers,	3	10	0
60 Sacks,	9	0	0
Sundry small articles,	20	10	0
	£. 278	13	6

Tillage.

Three earths on 65 acres of	l.	s.	d.
fallow,	39	0	0
Water-furrowing,	3	5	0
	£. 42	5	0

Labour.

Five earths on 195 acres of	l.	s.	d.
fallow,	48	15	0
Digging 200 perches, at 2 s. 6 d.	25	0	0
Ditto 400, at 2 s.	40	0	0
Ditto 800, at 1 s. 6 d.	30	0	0
Ditto 1000, at 1 s.	50	0	0
Hollow-ditching 200 perches,			
at 6 d.	5	0	0
Ditto 800, at 4 d.	13	6	8
Ditto 23,000, at 3 d.	287	10	0
Bringing 300 waggon-loads of			
manure from nearest town, two			
Carry over,	£. 499	11	8
			men

Brought over,	£. 499	11	8
men per day, 100, at 2s. 100.			
at 2s. 6d. and 100, at 3s.	37	10	0
Mowing, making, and stacking			
10 acres of grass,	-	-	3 10 0
Sundry small articles,	-	10	0 0
	£. 559	11	8
<i>Sundry articles.</i>			
Suppose the hedges are found			
deficient in bushes for new-			
making them; for this article	l.	s.	d.
we may allow,	-	-	90 0 0
300 Loads of manure, (broad-			
wheeled waggon) at 10s.	150	0	0
Materials for filling up 200			
perches of hollow-drains,			
at 9d.	-	-	7 10 0
Ditto for 800 perches, at 7d.	43	6	8
Ditto for 23,000 perches, at 6d.	575	0	0
162 Qrs. of oats, at 13s.	-	105	6 0
30 Tons of hay,	-	-	75 0 0
Cutting chaff,	-	-	2 10 0
Paling at the end of gates, and			
across ditches,	-	-	50 0 0
Shoeing, &c.	-	-	60 0 0
	£. 2158	11	8
Total of first year,	-	£. 2468	2 10 0

I should here explain one or two particulars. I allow so many as eighteen horses, on account of the annual improvement of the farm by town-manure: ten are sufficient for the common culture of it; and the other eight are for employing a broad-wheeled waggon constantly in that business. Cold wet loams, when drained, are extremely profitable to manure well; they will receive (without overdoing) a prodigious quantity of manure, and pay for it greatly. The articles of bushes for the hedges, and the paling at the ends of gates and across ditches, as in the preceding chapter, are highly necessary in the improvement of such farms, which must be supposed to have been occupied by slovenly tenants, who have let the fences run much to ruin.

The second year.

Rent, &c.	-	-	£. 168	0	0
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Seed for 65 acres of wheat, 65					
of barley and oats, 65 of					
clover, and 65 of beans,	£.	104	0	0	

Labour.

((845))

Labour.

One earth on 65 acres of wheat-	<i>l.</i>	<i>s.</i>	<i>d.</i>
land,	3	5	0
Sowing,	1	12	6
Water-furrowing,	3	5	0
Weeding,	3	5	0
Reaping, &c. at 6 s.	19	10	0
Thrashing, 4 qrs. per acre, (a two year's fallow) 260 qrs. at 2 s.	26	0	0
Carrying out, 20 at a time, 13 journeys,	1	6	0
One earth on 65 acres of spring- corn,	3	5	0
Sowing,	0	16	3
Ditto clover,	0	16	3
Harrowing,	0	16	3
Water-furrowing,	3	5	0
Rolling,	0	7	0
Mowing and harvesting, at 4 s.	13	0	0
Thrashing, $3\frac{1}{2}$ qrs. per acre, 227 $\frac{1}{2}$ qrs. at 1 s.	11	7	6
Carrying out 65 $\frac{1}{2}$ qrs. of barley, 2 journeys,	0	4	0
One earth on 65 acres of bean-land,	3	5	0
Sowing,	3	5	0
Water-furrowing,	1	12	6
Carry over,	£. 100	3	3
R 3		Hand-	

((226))

Brought over,	£. 100	3	3
Hand-hoeing, at 6 s.	-	19	10 0
Horse-hoeing 3 times, at 6 d.	-	4	17 6
Reaping and harvesting, at 7 s.	-	22	13 0
Thrashing, 2 qrs. <i>per</i> acre, at 1 s.	-	-	-
130 qrs.	-	-	6 10 0
Carrying out, 20 at a time,	-	-	-
7 journeys,	-	0	14 0
Three earths on 65 acres of fallow,	-	9	15 0
300 Waggon-loads of manure	-	-	-
were brought last year, if	-	-	-
we calculate each load to be	-	-	-
equal to 6 of clay, the whole	-	-	-
must be laid to 3600 loads of	-	-	-
earth; in all 4500 loads, mix-	-	-	-
ing, at 1 d.	-	-	18 15 0
Ditto, a second time,	-	-	18 15 0
Carting on to the land 4500 loads,	-	-	-
60 <i>per diem</i> , 75 days, at 11 s. 6 d.	-	43	2 6
Ditching 1000 perches, at 1 s.	-	50	0 0
Mowing, making, &c. 10 acres	-	-	-
of grass,	-	3	10 0
Bringing 300 loads of manure,	-	30	0 0
Sundry small articles,	-	10	0 0
	-	-	-
	-	6	338 7 3

Sundry

<i>Sundry articles.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Bushes,		30	0	0
300 Loads of manure,		150	0	0
Shoeing, and wear and tear,		60	0	0
20 Tons of hay,		50	0	0
Market expences,		4	0	0
		<u>£. 294</u>		
Second year's expence,		<u>£. 904</u>		
			7	3

Account of the third year.

Rent, &c.		£. 168	0	0
Seed,		£. 104	0	0
35 Cows,		£. 175	0	0
5 Sows,		£. 8	0	0

Labour.

Ploughing, sowing, and reaping		<i>l.</i>	<i>s.</i>	<i>d.</i>
65 acres of wheat, as before,		30	17	6
Thrashing, $4\frac{1}{2}$ qrs. per acre,				
(a two years fallow), 292 $\frac{1}{2}$				
qrs. at 2s.		29	5	0
Carrying out, 20 qrs. at a				
time, 15 journeys,		1	10	0
Ploughing, sowing, mowing,				
&c. &c. 65 acres of barley				
and oats, as before,		22	5	9
Thrashing, $4\frac{1}{2}$ qrs. per acre, at 1s.		14	15	0
Carry over,		£. 98	13	3
R 4				Carrying

Brought over,	£. 98 13 3
Carrying out 130 qrs. of barley,	
30 at a time,	8 0
Labour on beans, as before,	55 10
Thrashing, 3 qrs. <i>per</i> acre, 195	
qrs. at 1 s.	9 15 0
Carrying out, 10 journeys,	1 0 0
Mowing and making, &c. 10	
acres of grass,	3 10 0
300 Loads of manure brought	
last year, mixing them with	
earth in the former propor-	
tion, and carting on to the	
land, as before,	80 12 6
53 Head of cattle, at 12 loads	
each, 636 loads, carting double	
this quantity of earth, or 1272	
loads to farm-yard, 50 <i>per</i>	
<i>diem</i> , 26 days, at 15 s.	19 10 0
Mixing 1908 loads, at 1 d.	7 19 0
Filling and spreading 1908	
loads, 38 days, at 10 s.	19 0 0
Bringing 300 loads of manure,	30 0 0
Chopping, raking, and carting	
65 acres of stubble,	8 10 0
Cutting chaff,	2 10 0
Sundry articles of work,	20 0 0
	£. 356 12 9
	<i>Sundry</i>

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
600 Loads of manure, -	150	0	0
Shoeing, and wear and tear, -	60	0	0
Market expences, -	4	0	0
30 Tons of hay, -	75	0	0
Straw, -	40	0	0
	<u>£. 329</u>	<u>0</u>	<u>0</u>
Third year's expence, -	<u>£. 1140</u>	<u>12</u>	<u>9</u>

Before we proceed, we must examine the quantity of earth thrown out of the ditches.

	<i>Loads.</i>
2000 Perches, at 3 loads, -	6000
400 Ditto, at 4 ditto, -	1600
400 Ditto, at 6 ditto, -	2400
200 Ditto, at 7 ditto, -	<u>1400</u>
Total, -	<u>11400</u>
Of which there has been used, -	<u>8472</u>
Remains to be carried, -	<u>2928</u>

Account of the fourth year.

Rent, &c. -	<u>£. 168</u>	<u>0</u>	<u>0</u>
Seed, as before, -	<u>£. 104</u>	<u>0</u>	<u>0</u>
10 Cows, -	<u>£. 50</u>	<u>0</u>	<u>0</u>
2 Sows, -	<u>£. 3</u>	<u>0</u>	<u>0</u>
	<u>Labour.</u>		

Labour.		l. s. d.	
On 65 acres of wheat, as before,	61	12	6
Ploughing, fowing, mowing, and harveſting 65 acres of Barley and oats, as before,	22	5	9
Thrashing, 5 qrs. per acre, 325 qrs. at 1 s.	-	16	5 0
Carrying out 163 qrs. of barley, 6 journeys,	-	0	12 0
Labour on beans, as before, to harveſt,	-	55	5 0
Thrashing, 4 qrs. per acre, 260 qrs. at 1 s.	-	13	0 0
Carrying out, 13 journeys,	-	1	6 0
Mowing and making, &c. 40 acres of graſs,	-	15	0 0
300 Loads of manure brought laſt year, 1800 cart-loads mix- ed with 2928 of earth, (the quantity remaining of the ditches) in all 4728, at 1 d.	19	14	0
A ſecond time ditto,	-	19	14 0
Carting ditto on to land, 60 loads per day, 79 days, at 1 s. 6 d.	-	45	3 6
Carry over,	£.	269	17 9
			Carting

Brought over, £. 269. 17. 9
 Carting earth to farm-yard, mix-
 ing and recarting, as before, 46 9 0
 Labour on stubble, 8 10 0
 Bringing 300 loads of manure, 130 0 0
 Cutting chaff, 2 10 0
 Sundry small articles, 20 0 0
£. 377 6 9

Sundry articles. l. s. d.
 300 Loads of manure, - 150 0 0
 Shoeing, and wear and tear, 60 0 0
 Market expences, - 4 0 0
 Straw, - 40 0 0
£. 254 0 0
 Total, - £. 956 6 9

The state of the farm at the end of this year is as follows:

There have been carted on to it of town-
 manure and ditch-earth mixed, 13728 loads,
 Also, of farm-yard compost, 3816
17544

This number amounts to 58 loads per
 acre, over the whole 300 acres, both grass
 and arable. Besides this, there are likewise
 on the farm, ready for mixing with the
 earth, of borders, &c. &c. 300 waggon-
 loads, 1800 earth ones, which is sufficient
 alone,

alone, without a mixture, to cover the 300 acres, at the rate of 6 loads per acre. No one will deny that a farm, manured to such a degree, ditched so perfectly, and every part of it so thoroughly drained, is completely improved: I shall, for this reason, in the receipts of the fourth year, enter the sale of eight horses, &c.

RECAPITULATION.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Expence of the first year, -	2468	2	10
Interest, - - -	123	8	0
Expence of the second year,	904	7	3
Interest, - - -	168	12	0
Expence of the third year,	1140	12	9
Interest, - - -	225	12	0
Expence of the fourth year,	956	6	9
	<u>£. 5987</u>	<u>1</u>	<u>7</u>

Produce of the second year.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
65 Acres of wheat, 4 qrs. per acre, 260 qrs. at 2 <i>l.</i> -	520	0	0
65 Qrs. of barley, at 16 <i>s.</i> -	54	8	0
65 Acres of beans, 130 qrs. at 1 <i>l.</i> 12 <i>s.</i> -	208	0	0
	<u>£. 782</u>	<u>8</u>	<u>0</u>

Produce

(253)

<i>Product of the third year,</i>		
65 Acres of wheat, 4 $\frac{1}{2}$ qrs. per acre, 292 $\frac{1}{2}$ qrs. at 2 L.	-	585 0 0
130 Qrs. of barley, at 16 s.	-	104 0 0
65 Acres of beans, 195 qrs. at 1 L. 12 s.	-	312 0 0
35 Cows,	-	175 0 0
		1176 0 0
The second,	-	782 8 0
		£. 1958 8 0
Total expence,	-	5987 7 0
Produce,	-	1958 8 0
Total necessary to stock,	-	£. 4028 13 7

ANNUAL ACCOUNT.

Expences.

Rent, &c.	-	£. 168 0 0
Seed,	-	£. 104 0 0

Labour.

On 65 acres of wheat, as before,	£. 61 12 6
Ditto on 65 acres of barley and oats, thrashing included,	38 10 9
Carrying out 235 qrs. of barley, 8 journeys,	0 16 0
On beans, as before,	69 11 0
Carry over,	£. 170 10 3
Mowing,	

(254)

Brought over,	£	170	10	3
Mowing, making, &c. 35 acres of grass,				
		13	0	0
Carting earth to farm-yard, mix- ing, and recarting, as before,		46	9	0
Labour on 65 acres of stubble,		8	10	0
Cutting chaff,		1	13	8
Sundry small articles,		20	0	0
	£	260	2	11

<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing, and wear and tear,	45	0	0
Market expences,	14	0	0
Straw,	40	0	0
	£	89	0
Total,	£	621	2 11

<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
65 Acres of wheat, $4\frac{1}{2}$ qrs.			
per acre, $292\frac{1}{2}$ qrs. at 2 l.	585	0	0
225 Qrs. of barley, at 16 s.	188	0	0
65 Acres of beans, $3\frac{1}{2}$ qrs. per acre, $227\frac{1}{2}$ qrs. at 1 l. 12 s.	364	0	0
45 Cows,	225	0	0
	1362	0	0
Expences,	621	2	11
	740	17	1
Interest,	201	8	0
Profit,	£	539	9 1
			The

The capital pays 18 $\frac{1}{2}$ s. per cent. which is very considerable profit, though not equal to that of some other farms in this chapter. The gentleman's account is as follows:

	Stock.	
	l.	s. d.
Total of 1st year,	2468	2 10
27 per cent. on		
550 l. 11 s. 8 d.		
labour,	148	10 0
		2616 12 10
Interest,	-	130 16 0
Total of 2d year,	904	7 3
27 per cent. on		
338 l. 7 s. 3 d.		
		995 12 3
Interest,	-	180 11 0
Total of 3d year,	1140	12 9
27 per cent. on		
356 l. 12 s. 9 d.		
		1236 9 4
Interest,	-	248 10 7
Total of 4th year,	956	6 9
27 per cent. on		
377 l. 6 s. 9 d.		
		1036 1 9
		£. 6438 15 7
		Total,

(256)

Brought over, £. 6438 15 7
 Total produce, as before, 1958 8 0
 Total necessary to stock, £. 4480 7 7

ANNUAL ACCOUNT.

Expences. *l. s. d.*
 Total, - 621 2 11
 27 per cent. on 260 l. 2 s. 11 d. 70 4 0
 £. 691 6 11

Produce. *l. s. d.*
 The same, - 1362 0 0
 Expences, - 691 6 11
 Interest, - 670 13 1
 Profit, - £. 446 13 1

The capital pays 15 l. per cent.
 In the next place, I shall suppose the gentleman, after he has improved this farm, to let it.

At the end of the fourth year, he will have expended, with the
 interest of the fourth, - 6732 18 7

And received of
 produce, to the *l. s. d.*
 end of the third, 1958 8 0
 The fourth, 1362 0 0
 3320 8 0
 £. 3412 10 7
 From

Brought over, £. 3412 10 7

From this is to be deducted
the product by the sale of the
stock : It cost,

18 Horses, -	£. 270	00	
Implements, -	278	13	6
45 Cows, -	225	00	
Swine, -	11	00	
	£. 784	13	6
		500	00
		2912	10 7

Also, seed and tillage on the farm, 51 14 6

The farm will then owe him, £. 2860 6 1

At this time I suppose the farm let : It is
in excellent order, perfectly hedged, ditch-
ed, paled and drained, and very finely ma-
nured : the new tenant at once enters upon
65 acres of clover, which is a very great ad-
vantage. In this situation I shall suppose
the whole farm let at 1 £. 10 s. an acre.

300 Acres, at 1 £. 10 s. - £. 450 00

Old rent, - £. 120 00

Interest of 2860 £. 143 00

263 00

Annual profit, - £. 187 00

Rent, at 1 £. 10 s. - 450 00

Old rent, - 120 00

Improvement, - £. 330 00

The capital pays 11 l. 10 s. per cent.

If the farm is laid down, the account will be, not accurately, but nearly as follows:

Expended on the farm, -	£. 2860	6	1
Grass-seeds for 260 acres, -	260	0	0
Sowing, &c. &c. &c. -	30	0	0
	£. 3150	6	1
300 Acres, at 2 l. -	£. 600	0	0
Old rent, -	£. 120	0	0
Interest of 3150 l. 157	0	0	
		277	10 0
Annual profit, -	£. 322	10	0
Rent, at 2 l. -	600	0	0
Old rent, -	120	0	0
Improvement, -	£. 480	0	0

The capital pays 14 l. 2 s. And I should remark, that this profit in both accounts is very considerable; for it is an absolute certainty, liable to no deductions whatever, and open to no chances. It is a branch of the business in which the gentleman is fully equal to the farmer; and upon the whole, in estates of poor, wet, cold loams, is an excellent and profitable method of disposing of large sums of money.

GENERAL

GENERAL RECAPITULATION OF THIS
CHAPTER.

Sums requisite to stock the preceding farms.

N ^o I. 1000 Acres; the soil clay or loam; 1000 arable, and 1000 grass; 1	5197	11	6
Ditto a gentleman, - -	5450	3	6
N ^o II. 800 Acres; the soil clay or loam, one third grass, and two thirds arable, culti- vated on improved principles; cabbages in a course, - -	4900	12	8
N ^o III. 700 Acres; all grass, - -	4798	0	0
Ditto a gentleman, - -	4820	19	0
N ^o IV. 500 Acres; 460 arable, and 40 grass; the soil light, and marled, chal- ked, or clayed, - - -	5715	6	4
Ditto a gentleman, - -	6139	6	4
N ^o V. 440 Acres; the soil clay or loam, 400 arable, and 40 grass, cultivated upon im- proved principles; cabbages and lucerne, - - -	6590	14	0
N ^o VI. 300 Acres, the soil a poor, flat, wet loam, impro- ved; 260 arable, and 40 grass, - -	4028	13	7
Ditto a gentleman, - -	4480	7	7
S 2			Annual

Annual Produce of these farms, expences paid.

N° I.	-	£. 1539	2	6
	Ditto a gentleman,	1286	8	6
N° II.	Ditto,	1467	5	4
N° III.	-	1294	10	0
	Ditto a gentleman, --	1271	1	0
N° IV.	-	1009	9	8
	Ditto a gentleman, --	893	7	8
N° V.	Ditto,	2214	15	4
N° VI.	-	740	17	18
	Ditto a gentleman,	670	13	1

Profit per cent. on these farms.

N° I.	-	£. 29	12	0
	Ditto a gentleman,	23	11	0
N° II.	Ditto,	30	0	0
N° III.	-	27	19	0
	Ditto a gentleman,	26	7	0
N° IV.	-	17	13	0
	Ditto a gentleman,	14	10	0
N° V.	Ditto,	33	12	0
N° VI.	-	18	2	0
	Ditto a gentleman,	15	0	0

Comparison between the gentleman and farmer in their profits per cent. on these farms.

N° I.	The farmer,	29	12	0
	The gentleman,	23	11	0
	Superiority of the former,	£. 6	1	0
	N° III.			

N ^o III. The farmer,	-	£. 27 19 0
The gentleman,	-	26 7 0
Former superior by	-	£. 1 12 0
N ^o IV. The farmer,	-	17 13 0
The gentleman,	-	14 10 0
Former superior by	-	£. 3 3 0
N ^o VI. The farmer,	-	18 12 0
The gentleman,	-	15 0 0
Former superior by	-	£. 3 12 0

Progression of the farmer's farms in order of profit.

N ^o 1.	-	£. 29 12 0
3.	-	27 19 0
6.	-	18 2 0
4.	-	17 13 0

Progression of the gentleman's farms in order of profit.

N ^o 5.	-	£. 33 12 0
2.	-	30 0 0
3.	-	26 7 0
1.	-	23 11 0
6.	-	15 0 0
4.	-	14 10 0

The most profitable of the common farmer's farms is the clay one of 1100 acres, 1000 arable and 100 grass, which pays him

S 3

29 l.

29 1/2 per cent. That product is very great. Throughout most of the preceding chapters, the clay soils, that are rich and well managed, have yielded a vast profit; and I am well convinced, that no soil exists (in large quantities) that can equal it in profit. When a man meets with such, he should not be frightened at high rents. Rent is a trifle, compared to many other circumstances.

The second farm in the list, is the 700 acres all grass, which nearly equals the first in the remainder of profit; but, if the circumstances that cannot be calculated were taken into the account, this would be found the most profitable of all. It is a circumstance peculiar to these farms, that a large one is managed with nearly as little trouble as a small one. The business I have sketched is so simple and uniform, that one day's work may almost be said to be the whole of the farmer's real employment; he buys his stock all in one lot at a fair, and has little more to do with them; for the driving them off to Smithfield is not his work. After a year or two's dealing, such a grafter will find the most advantageous way of purchasing

chasing will be, to deal always with one drover; by which means he will buy to better advantage, and, at the same time, be more sure of his market than others who take the chance of it.

The third farm in this list, is the cold, flat loam, improved. Such are of great consequence to numerous farmers; for vast tracts of the kingdom consist of these soils, and good husbandmen are backward in occupying them, from the notion that their improvement will not pay the charges; and so they are left to slovens, that keep them in as bad a state as can be conceived. In no other soils are such miserable farms to be met with, as in this. The whole appearance of them, the poverty of the crops and the occupiers, and the visible greatness of the expence of improving them, all tend to frighten many spirited cultivators from having any thing to do with them. It is true, a man had better pay an high rent for a rich improved clay, than a low one for these soils; but rich clays under favourable circumstances are not always to be had; whereas such as are here described may probably be in much greater plenty, and

gained under more favourable tenures. It is therefore of great consequence, that farmers know the profit of improving of such lands, which, though not equal to some other soils, is yet considerable; and may, by certain favourable circumstances, be possibly carried to as high a pitch.

The last farm is the light soil, marled, chalked, or clayed, which pays near 18 *per cent.*; a profit that is certainly very considerable; but I do not apprehend these kind of farms will often be found as profitable, as the clay is already improved.

The first farm in the gentleman's list, and which pays so great an interest as 38 *l.* 12 *s.* *per cent.* is that cultivated under cabbages and lucerne. It is worthy of remark, that such noble profit (and which has undergone the deduction of 27 *per cent.* on all the labour of it) can be made of a culture perfectly well adapted to the situation of gentlemen, (more so than any farm can be that has any tillage on it,) and which is so very simple in all the management. It is a point of no trivial consequence to this class of cultivators, not only to have their buying and selling contracted into as small

small a compass as possible, but also, that the sum of money they throw into farming be so employed, that a large extent of ground is not necessary to it. Virgil's sentiment is totally applicable to the farm of a gentleman:

— *Laudato ingentia rura,*
Exiguum colito.

Small tracts of land are immediately under the eye of the cultivator; whatever men are employed, they are in one spot, and that very near the residence of the gentleman, who has only a little walk to the extremity of his farm. Such an one is much easier managed than larger farms, which require long walks or rides, and especially to gentlemen: For these reasons, a culture that requires a great deal of money on a small quantity of land, is peculiarly fitted for gentlemen; and this is in none so strongly the case, as in that of cabbages and lucerne, so proportioned that the first may just maintain the cattle in winter, as the lucerne will do in summer; by which means the whole farm is reduced, as it were, to one point, and the business rendered as simple as possible.

Such

Such gentlemen as have the command of a dry, sound, improved clay, that is not a perfect flat, but sloping some way, need not fear the making of it, by means of cabbages and lucerne, as great a profit, and in many instances greater than I have sketched; and if they do not possess such a soil of their own, they need not fear giving a very high rent to others for it: The profit which the account of this farm leaves, is great enough to pay a higher rent than any soil in England, of that sort, bears in common: I am confident, that noble fortunes may be made by this management.

The next farm, is the clay one, of 600 acres, one third grass and two thirds arable, in which cabbages are introduced in a course: This pays 30 *per cent.* Throughout all these calculations, this husbandry on rich clay soils has appeared to be extremely profitable; and for the introduction of only one *extra* crop in four, I apprehend no better one can be discovered than cabbages, which much more than throw clay soils upon a par with turnip ones, in the maintenance of great stocks of cattle.

cattle. The cabbage culture, I am confident, must become a common one in the clay countries of this kingdom: Its progress may be slow, as that of turnips was, but it will be no less sure.

The next profitable farm, is the grass one: This will ever rank high in the gentleman's account, and be attended with much more comparative profit than appears in these accounts; for there are scarce any deductions to be made but what appears, which is not the case with arable farms.

The fourth farm in this list is the 1100 acres arable clay, commonly managed; the profit is considerable; but so large a business, of a nature very troublesome and hazardous to a gentleman, should never be ventured upon without much experience, and a determined and minute attention.

The fifth is the cold, flat loam, improved: This is also a farm of common management; and consequently, in a great measure, improper for a gentleman's attention to it: The improvement likewise consists in a vast amount of labour, in which the gentleman lies under peculiar disadvantages.

Lastly,

Lastly, comes the farm improved with marle, chalk, or clay: The profit of this is by no means trifling; but the nature of the business lays it open to many objections; it is all carried on upon principles that do not coincide with a gentleman's situation in life.

Upon the whole, farming appears, in this chapter, in respect of profit, with great lustre. I apprehend no one can dispute, who allows but the outlines of my premises, that it is as profitable, if not more so, than most other trades or professions.

CHAP. XXVI.

Of the most advantageous method of disposing of 20,000 l. in farming.

IT is necessary to extend these calculations as high as 20,000 l. for an obvious reason: the preceding sums are common in farming; but there are few stocks so large as the amount of this sum. One great point I must endeavour to prove, is, that husbandry is a proper business and employment

ment for gentlemen, and not in a light only of amusement, but also of profit, and the disposition of large sums of money. Any business, that will not admit very large sums in stock, is, in the respects of which I am treating, useless. It has been objected to agriculture, that its profits are indeed great, but that large sums of money cannot be employed in it; and consequently the *progression of stock*, which is the soul of commerce, cannot take place; but I expect that the ensuing calculations will disprove such an idea. In one branch common sense, at one glance, tells us, there is no end of an increasing stock, viz. *grazing*, in which forty thousand pounds may be as easily employed as so many hundreds.

N^o 1.

*Three thousand acres, the soil clay or loam;
one third grass, and two thirds arable.*

In farms of this extent, some variation may be supposed in the rent; I have therefore rated it at two valuations. The reader will also remark some other variations from preceding accounts, which are requisite in so large a business.

Stock.

((270))

Stock.

Rent, &c.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 1000 acres of grass,	1000	0	0
Ditto of 2000 of arable, at 15 s.	1500	0	0
Tythe, rates, &c. &c. at 8 s.	1000	0	0

£. 3500 0 0

Live Stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
100 Horses,	1500	0	0
500 Cows,	2500	0	0
500 Steers or heifers, &c.	3500	0	0
50 Sows,	70	0	0
500 sheep,	300	0	0

£. 7870 0 0

Implements.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Three broad-wheeled waggons,	210	0	0
20 Narrow ditto,	500	0	0
30 Carts,	300	0	0
5 Small three-wheeled ones,	35	0	0
Harness,	200	0	0
60 Ploughs,	94	10	0
12 Harrows,	30	0	0
Rollers,	20	0	0
300 Sacks,	45	0	0
Dairy furniture,	80	0	0
Sundry small articles, such as screens, bushels, forks, rakes, shovels, ropes, lines, sieves, &c. &c.	100	0	0

£. 1614 10 0

Seed

Seed and tillage.

Four earths on 500 acres of	<i>l.</i>	<i>s.</i>	<i>d.</i>
wheat-land, - - -	400	0	0
Seed, - - -	250	0	0
Sowing, - - -	12	10	0
Water-furrowing, - - -	25	0	0
Three earths on 500 acres of			
spring-corn land, - - -	300	0	0
Seed, - - -	250	0	0
Sowing, - - -	6	5	0
Clover seed, - - -	100	0	0
Sowing, - - -	6	5	0
Harrowing, - - -	25	0	0
Water-furrowing, - - -	25	0	0
One earth on 500 acres of bean-			
land, - - -	100	0	0
Seed, - - -	200	0	0
	<u>£. 1700</u>	<u>0</u>	<u>0</u>

Labour.

One earth on 500 acres of	<i>l.</i>	<i>s.</i>	<i>d.</i>
wheat-land, - - -	45	0	0
Sowing, - - -	6	5	0
Harrowing, - - -	6	5	0
Water-furrowing, - - -	25	0	0
Weeding, - - -	25	0	0
Reaping and harvesting, at 6s. - - -	150	0	0
Carry over, £. 237	237	10	0
3 Thrashing			

Brought over,	£. 237	10	0
Thrashing the crop, 3 qrs. per acre,			
1500 qrs. at 2 s.	-	150	0 0
Carrying out, 20 qrs. at a time -			
per waggon, 60 in 3; 25			
journeys, 6 men, -		7	10 0
Three earths on 500 acres of			
barley and oat-land,		75	0 0
Sowing, - - - -		6	5 0
Ditto the clover, - - -		6	5 0
Harrowing, - - - -		6	5 0
Water-furrowing, - - -		25	0 0
Rolling, - - - -		2	10 0
Mowing and harvesting, at 4 s.		100	0 0
Thrashing the crop, 4 qrs. per			
acre, 2000 qrs. at 1 s.	-	100	0 0
Carrying out 275 acres of barley,			
1100 qrs. 90 at a time, 12			
journeys, - - - -		3	12 0
Three earths on 500 acres of			
bean-land, - - - -		75	0 0
Sowing, - - - -		25	0 0
Water-furrowing, - - -		12	10 0
Hand-hoeing, at 6 s. - -		150	0 0
Horle-hoeing thrice, at 6 d.		37	10 0
Reaping and harvesting, at 7 s.		175	0 0
Carry over,	£. 1194	17	0
Thrashing,			

Brought over,	£. 1194	17	0
Thrashing, 3 qrs. per acre, 1500			
qrs. at 1 s.	-	-	75 0 0
Carrying out, 60 qrs. at a time,			
25 journeys,	-	-	7 10 0
Chopping and raking 500 acres			
of stubble,	-	-	87 10 0
Carting home, 40 men and 20			
waggons, 5 days,	-	-	10 0 0
Ditching 2000 perches, at 1 s. 6 d.	150	0	0
Carting 8000 loads of earth to			
farm-yard, 30 carts, and 20			
drivers and unloaders, 300			
loads per day, 27 days, at 5 l.	135	0	0
600 Head of cattle, at 12 loads,			
7200 mixing with 8000, in			
all 15,200, at 1 d.	-	-	63 6 8
Carting 15,200 loads, and spread-			
ing, 300 per day, 50 days, at			
3 l. 10 s.	-	-	175 0 0
Mowing, making, and cocking			
300 acres of hay,	-	-	75 0 0
Carting ditto, and stacking, 10			
days, of 20 waggons and			
50 men,	-	-	87 10 0
Thatching,	-	-	5 0 0
Carry over,	£. 1965	13	8
Vol. II.			
Cutting			

Brought over,	£. 1965	13	8
Cutting chaff,	-	15	0
Carting faggots,	-	4	0
Sundry labour concerning cattle,			
5 men a year,	-	120	0
Wages and maintainance of a			
bailey *,	-	50	0
Sundry small unspecified articles,	100	0	0
	£. 2254	13	8
<i>Sundry articles.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Shoeing,	60	0	0
Wear and tear,	400	0	0
Market expences,	10	0	0
300 Loads of straw,	230	0	0
Sundry unspecified articles,	300	0	0
Cash in hand,	500	0	0
	£. 1520	0	0
Total,	£. 18459	3	8

ANNUAL ACCOUNT.

<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	3500	0	0
500 Steers,	3500	0	0
Carry over,	£. 7000	0	0

* The reader is not to imagine this is such a bailey as I have often hinted so many circumstances against. I mean here such an one as most *very* large farmers keep that have not several sons that are men; a mere overseer of the work, but trusted with no money farther than the labourer's pay of a Saturday night.

500 Sheep,

(275)

Brought over,	£. 7000	00
500 Sheep,	300	00
Seed for 500 acres of wheat, 500		
of barley and oats, 500 of		
beans, and 500 of clover,	800	00
Labour,	2254	13 8
Sundry articles,	1020	00
	£. 11374	13 8

Produce.

500 Acres of wheat, 1750 qrs.	l.	s.	d.
at 2 l.	3500	00	00
275 Acres of barley, 1100 qrs.			
at 16 s.	220	00	00
500 Acres of beans, 1750 qrs.			
at 1 l. 12 s.	2800	00	00
500 Cows,	2500	00	00
500 Fat beasts, at 12 l.	6000	00	00
500 Sheep,	600	00	00
	15620	00	00
Expences,	11374	13 8	
	4245	6 4	
Interest,	922	19 0	
Profit,	£. 3322	7 4	

The capital pays 23 l. per cent. The gentleman's account is as follows:

T 2

Stock.

	Stock.	l.	s.	d.
Rent, &c.	- - -	3500	2	0
Live stock,	- - -	7870	10	0
Implements,	- - -	1614	10	0
Seed and tillage,	- - -	1700	10	0
Labour, -	£. 2254	13	8	
27 per cent.	- 608	11	0	
		<u>2863</u>	4	8
Sundry articles, -	- -	1520	0	0
Total, -	£. 19067	14	8	

ANNUAL ACCOUNT.

	Expences.	l.	s.	d.
Rent, &c.	- - -	3500	0	0
500 Steers,	- - -	3500	0	0
500 Sheep,	- - -	300	0	0
Seed,	- - -	800	0	0
Labour,	- - -	2863	4	8
Sundry articles, -	- -	1020	0	0
		<u>£. 11983</u>	4	8

	Produce.	l.	s.	d.
The same,	- - -	15620	0	0
Expences,	- - -	11983	4	8
		<u>3636</u>	15	4
Interest,	- - -	953	7	0
Profit,	- - -	<u>£. 2683</u>	8	4

The capital pays 19 l. 1 s. per cent.

N^o 2. *Variation the first.*

The same farm, but cultivated on improved principles; cabbages in a course.

The only difference between this and the last farm is, the substituting cabbages in the course of the arable crops, instead of beans, which is a change that will be attended with very material consequences, being as great an improvement as can be introduced in one course.

For the sake of variations, I shall suppose this farm managed upon different principles from similar farms in the preceding calculations.

Stock. *l. s. d.*
Rent, &c. 3500 0 0

Live stock. *l. s. d.*

100 Horses, 1500 0 0

900 Oxen, 6300 0 0

20 Cows, 1000 0 0

2000 Sheep, 2000 0 0

£. 9900 0 0

Implements. *l. s. d.*

N^o 1. 1614 10 0

Deduct of dairy furniture, 60 0 0

£. 1554 10 0

T 3 Seed

<i>Seed and Tillage.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
On wheat, as before,		687	10	0
Ditto barley and oats,		712	10	0
One cart on 500 acres of				
cabbage-land,		100	0	0
Seed,		25	0	0
		<u>6.</u>	<u>1575</u>	<u>0 0</u>
<i>Labour.</i>				
One cart on 500 acres of wheat-				
land,		25	0	0
Sowing,		6	5	0
Harrowing,		6	5	0
Water-furrowing,		25	0	0
Weeding,		25	0	0
Reaping and harvesting, at 6 s.		150	0	0
Thrashing the crop, 32 qrs.				
per acre, 1750 qrs. at 2 s.		175	0	0
Carrying out, 60 at a time, 29				
journeys, 6 men,		18	14	0
Three carts on 500 acres of				
barley and oat land,		75	0	0
Sowing,		62	5	0
Ditto clover,		6	5	0
Harrowing,		6	5	0
Water-furrowing,		25	0	0
Rolling,		2	10	0
Carry over,		7.	542	9 0
				Mowing

Brought over,	£.	542	9	0
Mowing and harvesting, at 4s.		100	0	0
Thrashing the crop, 5 qrs. per acre, 2500 qrs. at 1s.		-	125	0
Carrying out 320 acres of barley, 1600 qrs. 90 at a time, 16 journeys,		-	4	16
Five earths on 500 acres of cabbage-land,		-	125	0
Digging the feed-bed, and sowing,		-	7	10
Planting, at 5s.		-	125	0
Four horse-hoeings, at 6s.		-	50	0
Two hand-hoeings, at 8s.		-	200	0
Cutting and carting, at 5s.		-	125	0
Chopping and raking 500 acres of stubble,		-	37	10
Carting,		-	10	0
Ditching 3000 perches, at 1s. 6d.		225	0	0
Carting 12,000 loads of earth to farm-yard, 300 loads per day, 40 days, at 5l.		-	200	0
1020 Head of cattle, at 12 loads, 12,240 loads mixing with 12,000 loads of earth; in all 24,240 loads, at 1d.		-	101	10
Carry over,	£.	1978	15	0
T 4				Carting

(280)

Brought over,	£.	1978	15	0
Carting 24,240 loads, 300 per day, 80 days, at 3 l. 10 s.	280	0	0	
Mowing, making, and cocking of 200 acres,	50	0	0	
Carting ditto, and stacking, 7 days, of 20 waggons and 50 men,	28	2	6	
Thatching,	4	0	0	
Cutting chaff,	13	0	0	
Carting faggots,	4	0	0	
Sundry labour concerning cattle; 5 men a year,	120	0	0	
Wages and maintainance of a bailey,	50	0	0	
Sundry unspecified articles,	100	0	0	
	£.	2629	17	6
<i>Sundry articles.</i>				
	l.	s.	d.	
Shoeing,	60	0	0	
Wear and tear,	400	0	0	
Market expences,	8	0	0	
500 Loads of straw,	350	0	0	
Sundry unspecified articles,	300	0	0	
Cash in hand,	500	0	0	
	£.	1618	0	0
Total,	£.	20776	17	6

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.		3500	0	0
900 Oxen,		6300	0	0
2000 Sheep,		2000	0	0
Seed for 500 acres of wheat, 500				
of barley and oats, 500 of				
clover, and 500 of cabbages,		675	0	0
Labour,		2629	7	6
Sundry articles,		1118	0	0
		<u>£. 16222</u>	<u>7</u>	<u>6</u>

Produce.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
500 Acres of wheat, 1750			
4 qrs. at 2 l.	3500	0	0
320 Acres of barley, 1620			
2 qrs. at 16 s.	1296	0	0
900 Oxen fat,	12600	0	0
20 Cows,	100	0	0
2000 Sheep,	4000	0	0
	21496	0	0
Expences,	<u>16222</u>	<u>7</u>	<u>6</u>
	5273	12	6
Interest,	811	2	0
Profit,	<u>£. 4462</u>	<u>10</u>	<u>6</u>

The capital pays 32 l. 9 s. per cent.
Which profit is very considerable; and
particularly

particularly as the greatness of the business, and the size of the farm, occasion many extraordinary expences, which are charged to the account of it. No trade or profession can be more profitable than this. To enjoy an income of above 5000 *l.* a year from a capital of 20,000 *l.* is a most noble profit, and highly deserving the attention of every gentleman who places a son in a way of increasing his fortune.

N^o 3.

Variation the second.

Three thousand acres, all grass.

Stock.

<i>Rent, &c.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
3000 Acres,	3000	0	0
Tythe, rates, &c. &c. - -	1200	0	0
	<u>£. 4200</u>	0	0

Implements.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Five small three-wheeled carts,	35	0	0
Harness for 3 horses, - -	6	0	0
Sundry small articles, - -	50	0	0
	<u>£. 91</u>	0	0

Live stock.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
3 Horses, - - -	45	0	0
3000 Steers,	15000	0	0
500 Sheep,	500	0	0
	<u>£. 15545</u>	0	0

Labour.

((283))

<i>Labour.</i>	
2000 Perches of ditching, cart-	<i>l. s. d.</i>
ing, and spreading, at 3 s.	300 0 0
Sundry articles, - - - -	50 0 0
	<u>£. 350 0 0</u>
<i>Sundry articles.</i>	
Shoeing, and wear and tear, -	5 0 0
Market expences, - - - -	4 0 0
Cash in hand, - - - -	200 0 0
	<u>£. 209 0 0</u>
Total, - - - -	<u>£. 20395 0 0</u>

ANNUAL ACCOUNT.

<i>Expences.</i>	
Rent, &c. - - - -	<i>l. s. d.</i>
3000 Steers, - - - -	4200 0 0
500 Sheep, - - - -	15000 0 0
Labour, - - - -	500 0 0
Sundry articles, - - - -	350 0 0
	9 0 0
	<u>£. 20059 0 0</u>

<i>Produce.</i>	
3000 Steers, at 8 l. 10 s. -	<i>l. s. d.</i>
500 Sheep, - - - -	25500 0 0
	1000 0 0
	<u>26500 0 0</u>
Expences, - - - -	20059 0 0
	<u>6441 0 0</u>
Interest, - - - -	1000 19 0
Profit, - - - -	<u>£. 5438 1 0</u>
The	

The capital pays 30 l. 2 s. per cent.

The gentleman's account is as follows:

Stock.		
Rent, &c.	- - -	4200 0 0
Implements,	- - -	91 0 0
Live stock,	- - -	15545 0 0
Labour,	£ 351 0 0	
27 per cent.	- - -	94 15 0
		445 15 0
Sundry articles,	- - -	209 0 0
Total,	- - -	
		£ 20490 15 0

ANNUAL ACCOUNT.

Expences.			l.	s.	d.
Rent, &c.	- - -		4200	0	0
3000 Steers,	- - -		15000	0	0
500 Sheep,	- - -		500	0	0
Labour,	- - -		445	15	0
Sundry articles,	- - -		209	0	0
			£ 20354	15	0

Produce.			l.	s.	d.
The same,	- - -		26500	0	0
Expences,	- - -		20354	15	0
			6145	5	0
Interest,	- - -		1024	10	0
Profit,	- - -				
			£ 5120	15	0

The capital pays 30 per cent. which, from a farm that is open to so few deductions that cannot be calculated, is very great.

great. These 3000 acres of land are managed with the utmost simplicity. The labour is trifling, and the attention of the cultivator so little divided, that he may almost be said to lead a life of idleness, at the same time that he trades as profitably as the most assiduous sons of care. If he lives upon a thousand a year, he may lay up four thousand; or, in other words, be worth 100,000 *l.* in less than twenty-five years, and that without reckoning the compound interest, or the placing the savings at any but common securities.

N° 4.

Variation the third.

Thirteen hundred acres arable, the soil clay or loam, and cultivated upon improved principles; cabbages and lucerne.

One of the great excellencies of this accurate culture is, bringing the employment of a large sum in stock into the contracted sphere of a farm comparatively small. Thirteen hundred acres cannot be called a very large one, as there are many in almost every county of England, three, and four times as large; and yet we shall find this

tract of land sufficiently extensive to employ
20,000 *l.* in stock.

<i>Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
<i>Rent, &c.</i>				
Rent of 1300 acres, at 15 <i>s.</i>		975	0	0
Tythe, rates, &c. &c. at 8 <i>s.</i>		390	0	0
		<u>£. 1365</u>	0	0

<i>Live Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
36 Horses,	-	540	0	0
300 Cows,	-	1500	0	0
30 Sows,	-	36	0	0
		<u>£. 2076</u>	0	0

<i>Implements.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
One waggon,	-	25	0	0
Eight carts,	-	80	0	0
Twenty ploughs,	-	31	10	0
Harness,	-	80	0	0
Three pair of harrows,	-	8	0	0
Dairy furniture,	-	200	0	0
Sundry articles,	-	100	0	0
		<u>£. 524</u>	10	0

<i>Seed and tillage.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Three earths on 300 acres of fall	-	180	0	0
low for wheat, but not sown,	-	180	0	0
Carry over,	-	<u>£. 180</u>	0	0

The reader should remark, that I am sensible this sum is too small; but if it was in true proportion, it would increase the account too much for those who should substitute other cattle instead of cows, or manage them by suckling.

Seed,

Brought over,	£.	180	0	0
Seed for 300 acres of lucerne, at 6s.		90	0	0
Ditto for 60 acres of cabbages,		9	12	0
	£.	279	12	0

Labour.

Three earths on 300 acres of	l.	s.	d.
lucerne-land, - - -	45	0	0
Harrowing, - - -	2	10	0
Drilling, at 6 s. - - -	7	10	0
Hand-hoeing four times, at 6 s.	360	0	0
Cutting 3 times, at 1 s. 6 d.	67	10	0
Raking together, loading, and carting home, at 1 s. 6 d. -	67	10	0
Five earths on 60 acres of cabbage- land, - - -	15	0	0
Digging the seed-bed, sowing, &c.	0	15	0
Planting, at 5 s. - - -	15	0	0
Four horse-hoeings, at 6 d. -	6	0	0
Two hand-hoeings, at 8 s. -	24	0	0
Cutting and carting, at 5 s. -	15	0	0
Six earths on 840 acres of fallow,	252	0	0
Mowing and making 60 acres of hay, - - -	15	0	0
Carting, stacking, and thatching,	8	10	0
Sundry small articles of work, -	30	0	0
	931	5	0
27 per cent. - - -	251	7	0
	£. 1182	12	0
			<i>Sundry</i>

<i>Sundry articles.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
A drill plough,	-	8	0	0
Straw cut into chaff,	-	24	0	0
324 Qrs. of oats, at 13 s.	-	210	12	0
Shoeing, and wear and tear,	-	100	0	0
80 Loads of straw,	-	60	0	0
		<u>£. 402 12 0</u>		
Total,	- - -	£. 5830	6	0

<i>Second year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	£. 1365	0	0
600 Cows,	- - -	£. 3000	0	0
Seed for 450 acres of lucerne,	- - -	£. 135	0	0
Ditto for 180 acres of cabbages,	- - -	£. 28	16	0

<i>Labour.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Three earths on 450 acres of lucerne-land,	- - -	67	10	0
Drilling,	- - -	11	5	0
Hand-hoeing four times, at 6 s.	- - -	540	0	0
Cutting 3 times, at 1 s. 6 d.	- - -	101	5	0
Raking together, loading, and carting home,	- - -	101	5	0
Three earths on 180 acres of cabbage-land,	- - -	27	0	0
Digging the feed-bed, sowing, &c.	- - -	1	16	0
Planting, at 5 s.	- - -	45	0	0
Four horse-hoeings, at 6 d.	- - -	18	0	0
Carry over,	- - -	£. 913	1	0
		Two		

Brought over,	£. 913	1	0
Two hand-hoeings, at 8 s.	-	72	0
Cutting and carting, at 5 s.	-	45	0
Two hand-hoeings of 300 acres of lucerne,	-	180	0
Four horse-hoeings, at 6 d.	-	30	0
Four cuttings, at 1 s. 6 d.	-	90	0
Raking, loading, and carting,	-	90	0
900 Perches of ditching, at 1 s.	-	45	0
Carting 2700 loads of earth to farm-yard, 80 per day, 33 days, at 1 l. 5 s.	-	41	5
Mixing 2700 loads of earth with 3300 of dung, in all 6000, at 1 d.	-	25	0
Carting and spreading, 80 loads per day, 75 days, at 17 s.	-	63	15
Mowing, making, carting, &c. hay, as before,	-	15	0
Sundry small articles,	-	30	0
		<u>1640</u>	1
27 per cent.	-	442	16
Total,	-	<u>£. 2082</u>	17 4
Sundry articles.		l.	s. d.
Straw cut into chaff,	-	24	0
Shoeing, and wear and tear,	-	100	0
Carry over,	£. 124	0	0
VOL. II.	U	Oats,	

Brought over,	£. 124	0	0	
Oats, as before,	-	210	12	0
150 Loads of straw,	-	100	0	0
	£. 434	12	0	

Third year.

Rent, &c.	-	-	£. 1365	0	0
1350 Cows,	-	-	£. 6750	0	0
60 Sows,	-	-	£. 80	0	0
Seed for 450 acres of cabbages,			£. 67	10	0

Labour.

Two hand-hoeings of 750 acres	l.	s.	d.
of lucerne, at 6 s.	-	450	0 0
Four horse-hoeings, at 6 d.	-	75	0 0
Four cuttings, at 1 s. 6 d.	-	225	0 0
Raking together and carting,			
at 1 s. 6 d.	-	225	0 0
Four earths on 450 acres of			
cabbage-land,	-	90	0 0
Digging the seed-bed and sowing,	4	0 0	
Planting, at 5 s.	-	112	10 0
Four horse-hoeings, at 6 s.	-	45	0 0
Two hand-hoeings, at 8 s.	-	180	0 0
Cutting and carting, at 5 s.	112	10 0	
1200 Perches of ditching, at 1 s.	60	0 0	
Carry over,	£. 1579	0 0	
Carting			

(291)

Brought over,	£. 1579	0	0
Carting 3600 loads of earth to farm-yard, 80 per days, 45 days, at 1l. 5 s.	-	56	5 0
Mixing 3600 loads with 10,400 of dung, in all 14,000, at 1 d.	58	6	8
Carting and spreading 14,000 loads, 80 per day, 175 days, at 17 s.	-	148	15 0
Cutting chaff,	-	4	0 0
Mowing, making, carting, and stacking hay, as before,	-	151	0 0
Sundry articles relative to cattle, 3 men,	-	72	0 0
		1933	6 8
27 per cent.	-	521	18 0
Total,	-	£. 2455	4 8
Sundry articles.		l.	s. d.
Shoeing, and wear and tear,	100	0	0
Oats,	210	12	0
300 Loads of straw,	200	0	0
Cash in hand,	300	0	0
	£. 810	12	0
Total,	-	£. 11528	6 8
First year's expence,	-	5830	6 0
Interest,	-	291	10 0
Carry over,	£. 6121	16	0
U 2		Second	

(292)

Brought over,	£. 6121	16	0
Second year's expence,	-	7046	5 0
Interest,	-	643	16 0
Third year's expence,	-	11528	6 8
Total,	£. 25340	3	8

Produce.

First year. *l. s. d.*

300 Cows,	-	1500	0 0
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Second year.

900 Cows,	-	4500	0 0
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£. 6000	0 0
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Total expence,	-	£. 25340	3 8
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— Produce,	-	6000	0 0
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Total necessary to flock,	£. 19340	3 8
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ANNUAL ACCOUNT.

Expences. *l. s. d.*

Rent, &c.	-	1365	0 0
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Seed,	-	67	10 0
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Labour,	-	2455	4 8
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Sundry articles,	-	510	12 0
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£. 4398	6 8
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Produce. *l. s. d.*

2250 Cows,	-	11250	0 0
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Expences,	-	4398	6 8
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6851	13 4
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Interest,	-	987	0 0
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Profit,	£. 5884	13 4
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The

The capital pays 35 l. 8 s. *per cent.* which profit being very considerable, and arising from culture not common, requires a few words in explanation. I have explained similar matters more than once; but I feel so many cavilling objections against such calculations, from those who *will not* read with the same view that the author wrote, that some sacrifices must be made to prejudiced and narrow minds.

I once more repeat, that the grand point in such estimates is the product of one acre of a vegetable; for, if that is upon a medium stated not beyond the truth, the extension of it to 5 or 6000 is little more than a matter of multiplication, some points of consistency (not exactly proportioned) excepted. Cabbages and lucerne have been found of incomparable use in feeding cows, and more *peculiarly* adapted to that use than most other vegetables; but it does not therefore follow, that they will do for no other purpose; that they will fat beasts excellently, (particularly cabbages) has been proved by many experiments; and there can be no doubt of their answering incomparably in rearing young cattle: In a

word, I suppose a given number of aeres of these crops; the use they are put to is another point, and will be thought judicious or absurd, according to the circumstances of the place to which the estimate is compared.

A dairy of above 2000 cows, cries one, *how absurd! How many milkmaids there must be; and pails, and trays, and churns!* Certainly, all these are mere matters of proportion, only transacted in large instead of small. A dairy of 200 cows is conducted in the west of England with as much ease and simplicity, as a paltry one of 5 or 6 in the eastern parts; and one dairy-wife is as much taken up with the little concern, as the other with the great one: nor have I any doubt but 2000 cows might be managed with as much ease as 200. It is true, the expences run proportionably; if they did not, the profit of the great dairies should be reckoned much higher than the smaller ones.

But another of my readers, who lives in a country where *milking* is particularly beneficial, had I calculated this farm for *fattening*, might at once say, *So! this is a fine estimate,*

estimate, truly I am to graze 2000 heifers in a country where it is not profitable to fat one. And a third, who has practised breeding with equal success, might ridicule the whole for not being founded on his business. And thus we may go round the circle; every calculation tolerably drawn up, may be of use to some places; none can be adapted to all. My business is, to state certain methods of culture: I then (under this supposition) calculate the sum requisite to stock a farm so conducted; but whether it be applied to the culture of corn, grass, or turnips, whether oxen or cows are fed, or other variations, is not the point; the only business is, the sum of money requisite, which will appear from my calculations, though not accurately, yet near the mark. But, in what manner soever they might have been sketched, something must be left to the reader to make the application.

Such a series of calculations as this, under such a variety of circumstances, and varied so prodigiously in every point, cannot be thought to be conducted with an eye so much to accuracy, as utility, which

here are not so strictly united as in many other cases. In this, a minute attention to trifles would, I am confident, render these estimates less applicable to real circumstances, than a more general method of conducting them.

I must again repeat, that when I calculate so large a number as 2000 cows, I am only shewing *proportions*. A cultivator of such a farm may find it more adviseable to apply his crops to feed other species of cattle, as less troublesome; but still the proportionate stock remains the same. There are many who might say to me, *Would you advise me to incumber myself with 2000 cows?*

To whom I should assuredly answer, *By no means*. But suppose they vary their question, and say, *Which is the most profitable use to which 13000 acres of cabbages and lucerne can be applied?* I reply, *To the feeding of cows*. But does it follow that I

am to smooth the difficulties in such a plan, on comparison with common management? That would be an absurd attempt.

I suppose the cows to pay 5 l. exclusive of expences; the latter may run so high, in some places, that this supposition will be

false ; in others, it will also be false for the contrary reason ; So that every one should adapt such circumstances to his situation. In the same manner, the stated profit from so large a number may be thought too great, on account of the expences ; but as expence may rise in some places with the number, and fall in others, still the matter remains as it was. But this is not the material point ; I state the proportion ; and when I suppose no more than ten cows, they may be rejected for ten oxen, for good reasons, in some situations ; and in the same manner, 2000 cows changed for oxen, young cattle, or sheep, on account of the *number*.

I must however add, that we ought never to think every thing impossible that is not executed. There are more farmers who think it impossible that cabbages can be a good food for cows, than gentlemen who think it impossible to have a dairy of 2000 ; conveniences might be contrived to render that number as easy in management as 20.

RECAPITU-

RECAPITULATION OF THIS CHAPTER.

Sums requisite to stock these farms.

N° I. 3000 Acres; one third
grafs, and two thirds arable,
the soil clay or loam, l. s. d.
18459 3 8

Ditto a gentleman, - 19067 14 8

N° II. The same; but cul-
tivated upon improved princi-
ples; cabbages in a course, 20776 17 6

N° III. 3000 Acres, all grafs, 20395 0 0

Ditto a gentleman, - 20490 15 0

N° IV. 1300 Acres; 1200
arable, and 100 grafs; cultiva-
ted upon improved principles;
cabbages and lucerne, - 19340 3 8

Produce of these farms, expences paid.

N° I. - - - - - £. 4245 6 4

Ditto a gentleman, - 3636 15 4

N° II. Ditto, - - - - - 5273 12 6

N° III. - - - - - 6441 0 0

Ditto a gentleman, 6145 5 0

N° IV. Ditto, - - - - - 6851 13 4

Profit per cent. on these farms.

N° I. - - - - - £. 23 0 0

Ditto a gentleman, - 19 1 0

N° II. Ditto, - - - - - 32 9 0

N° III.

N^o III. Ditto a gentleman, - £. 32 2 0

N^o IV. Ditto, - 35 8 0

Comparison between the gentleman and farmer in these farms.

N^o I. The farmer, - £. 23 0 0

The gentleman, - 19 1 0

Former superior by - £. 3 19 0

N^o III. The farmer, - 32 2 0

The gentleman, - 30 0 0

Former superior by - £. 2 2 0

Progression of the farmer's farms in order of profit.

N^o 3. - - - £. 32 2 0

I. - - - 23 0 0

Ditto of the gentleman's.

N^o 4. - - - £. 35 8 0

2. - - - 32 9 0

3. - - - 30 0 0

I. - - - 19 1 0

The most profitable of the farmer's farms is the grazing one. That kind of husbandry has been found in most chapters at the head of the list, and very high in all. It is of importance to find grass is equally beneficial in great as well as in small farms.

The

The profit of that, one third grass and two thirds arable, though not near so advantageous as the grazing one, is yet very beneficial.

In the gentleman's, that which is solely occupied with cabbages and lucerne is much the best, and containing so much less land, at the same time that it is so much more profitable, is proof sufficient of the great profitableness of such farms : nor should we forget, that this profit is a remainder after the usual deduction of 27 *per cent.* The next in profit, is the farm one third grass and two thirds arable, cultivated with cabbages in a course; the introduction of which vegetable, instead of beans, is a great point of advantage to the gentleman, unenjoyed by the farmer, and nobly tending to render farming as profitable to the one as the other. The last farm is the common one, one third grass and two thirds arable, which pays 19 *per cent.*; but I need not remark, that with all farms containing so much arable, there are numerous disadvantages to gentlemen, unsusceptible of calculation.

Upon

Upon the whole, it appears from this chapter, that very large sums of money are as advantageously employed, and even more so, in farming, than small ones, allowing for all those enlarged expences which arise from the greatness of the business.

I cannot here omit remarking, that great numbers of gentlemen, possessed of various sums of money, from 2 or 3000 *l.* to 20,000 *l.* are placed by their parents in trade, as the only road to make a considerable fortune. Very far am I from insinuating any thing against commerce; all I would be understood to mean is, that agriculture ought to be considered in the light of a proper business, as well as a merchant's counting-house, for young men to apply to who have the making a fortune in view. A distinction is, however, to be made, between such as apply to trade without any matters of foundation besides their industry, and others who begin the world with a handsome sum of money. To the first, husbandry is totally improper: those slow advances that are made from *nothing* to *something*, so common in trade, cannot possibly be found in it, except in so low a

style

still as to be excluded from the present reasoning: But, on the contrary, others who begin the world with 2 or 3000 *l.* or more, may undoubtedly find agriculture as sure a means of rising to a large fortune as ever commerce proved.

Many gentlemen of family are above that obscure drudgery requisite for rising in trade; and indeed I cannot conceive the propriety of a young fellow of quality (who is bred up from his infancy with a contempt of a counting-house) being fixed in the trade of telling that two and two makes four; and we accordingly see the greatest number of them bred to professions which are reckoned honourable and polite; such as arms, the court, and the church: professions in which no fortunes are made, only good incomes gained; and these are, in many instances, had recourse to for want of a profitable business existing, that is, at the same time, perfectly liberal, polite, and honourable.

Agriculture, of all others, is that profession, in the genuine reason of things, none is more creditable, more useful to mankind; in no instance feeding the luxurious pamper-

ed

ed taste of *the private* or *the publick*; in no respect tending to enrich its votaries at the expence of the nation at large. In the ideas of all wise and polite people, in both antient and modern times, the culture of the earth has been considered as the most honourable of all professions. In all those nations wherein trade and manufactures are treated with contempt, and reckoned inconsistent with the spirit of honour, and derogatory from nobility, agriculture reigns in this respect in full lustre. In Germany, France, Spain, Italy, &c. &c. &c. *trade* and *family* are incompatible. Not so with agriculture, which is practised by numbers of the first nobility; and in Germany, many of the most considerable princes are mere farmers of their *domaine*, while their ten thousandth cousin would be defiled by commerce.

Nor are these ideas peculiar to foreign countries; we find them very strong in our own; numbers of our nobility, that would not deign to *trade*, farm to no trifling extent; and gentlemen who cultivate ever so much of their own estates, or those of others, are not considered in the light of traders.

traders. Every point concerning rank, situation in life, politeness, and gentility, remain totally unimpeached by such a practice.

But agriculture is not only congenial in these respects with the *ideas* of the world; she has, in herself, charms to display, sufficient to captivate any mind not insensible to the distinctions of physical as well as moral beauty. The employment is rather an amusement than a business. It is the amusement of men of the first quality; and tends nobly to the enlarging and adorning the human mind, at the same time that it promotes, in an excellent degree, the publick good. A circumstance, which, however it may be laughed at by those false wits who ridicule the *amor patriæ*, yet will ever be esteemed in no slight manner by men of sound parts.

With respect to the coincidence of business with pleasure, what profession can be compared to that of agriculture, in which a gentleman is forwarding the oeconomical part of his attention, by walking, riding, shooting, fishing, &c. &c. ? or by any rural diversion that requires him just to shew himself once
or

or twice a day in his fields, that his men may know he is at home, and he know what they are after. Nothing in his business, either sedentary or otherwise, unhealthy, trifling, mean, or disgusting.—In a word, the more attention that is given to this new employment for gentlemen, in the better light will it undoubtedly appear.

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T H E

FARMER'S GUIDE.

B O O K II.

Of the hiring and stocking farms in uncultivated countries.

THE subject of this book is peculiarly important; for, beyond all doubt, there are many persons deterred from undertaking such improvements, from an ignorance, or at least a want of calculating the expences. All I pretend to offer, in this case, is a series of estimates, so varied as to come near the truth in most uncultivated countries in this kingdom. It is impossible to be exact to facts. Minute variations in such a plan are impossible to be prevented, and not of bad consequence in many soils. I have already remarked, that calculations, numerous enough to comprehend all cases, would require an hundred thousand folios, at least, to contain them.

The plan I shall pursue in this enquiry will be, to calculate on three kinds of uncultivated soils.

- I. The downs, heaths, commons, warrens, &c. that require improvement by fencing with hedges and ditches, and manuring with marle, chalk, or clay.
- II. The muirs, heaths, commons, &c. that require improvement by fencing with walls, and manuring by paring and burning.
- III. The fens, bogs, marshes, &c. that require improvement by draining.

The reader should remember, that I do not mean, in any part of this work, to offer dissertations on improvement in general; on the contrary, I confine myself to the single point of *hiring and stocking*. To treat fully of the culture of these three kinds of uncultivated soils, would alone, without any mention of cultivated ones, require a much greater compass than both these volumes.

As improvements of this sort are relative chiefly to common husbandry, I shall make no other distinction between a gentleman and a common farmer, than an addition, as

before, of 27 *per cent.* to the article Labour; and this variation, from my former conduct, is occasioned by the paucity of experiments on uncultivated soils. To suppose the cultivation of cabbages, carrots, lucerne, &c. on soils in which there is no authentic account of their having succeeded, would be to leave the sure ground of experience and certainty, for the airy regions of fancy and conjecture. There can be no doubt of carrots succeeding in a certain degree on the lightest sands, or of cabbages answering excellently on drained bogs; but, excepting one experiment of the Marquis of Tourbilli in France, there are no facts to *prove* either of these suppositions; for which reason I reject them from the ensuing calculations; so that the crops in these farms will be the same both to the gentleman and the farmer.

A variation from the former book will, in another point, be found here; which is the improvement for *letting*, as well as *farming*. This is not confined to gentlemen; I shall, therefore, suppose the farmer to have the advantage (as he certainly may at all times in reality) as well as the gentleman.

I should likewise remark, that it will be needless to form any calculations for the disposition of small sums of money; as such cannot be employed to the least advantage upon uncultivated soils; nor is it necessary to calculate upon so many different sums as in the preceding book; and this from the nature of the business.

CHAP. I.

Of the most advantageous method of disposing of 5000 l. in the cultivation of waste lands.

THERE may be, and probably are, many landlords, in possession of waste lands, that would not only let them for a long term of years at a trifling rent, but also raise all the necessary buildings, for an addition to the rent of reasonable interest for the sum so expended, which indeed is the fairest and most adviseable method of performing the business; but as many gentlemen are to be found (probably a much greater number) who either cannot, or will not, be at any such expence, it will be necessary to suppose the occupier to erect the

the buildings: and there will be a double use in this supposition; for it will shew not only the real degree to which these improvements are beneficial, but at the same time point out the advantage of landlords improving *their own* estates, in which employment they necessarily *must* raise the buildings.

N^o I

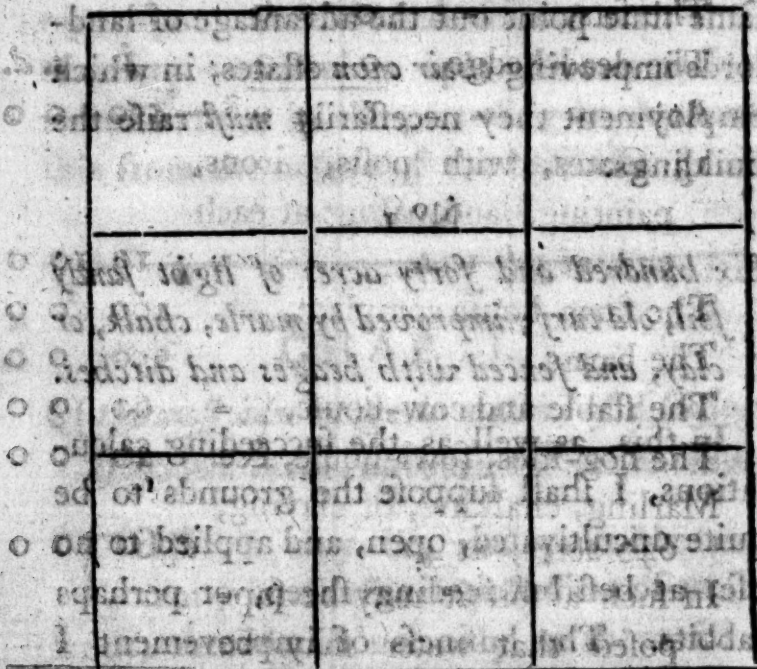
Six hundred and forty acres of light sandy soil, old turf; improved by marle, chalk, or clay, and fenced with hedges and ditches.

In this, as well as the succeeding calculations, I shall suppose the grounds to be quite uncultivated, open, and applied to no use, at best but feeding sheep, or perhaps rabbits. The business of improvement I suppose to be transacted the first year, which may as readily be done as in any succeeding one, if the money is ready; and throughout all these estimates, that must ever be supposed; for the man who undertakes improvements in agriculture without his cash in hand, or depending for any part of it on contingences, had better let himself a labourer to others, than think of being a master.

(1312)

The business of the inclosure of this farm
best appears from the following sketch.

FIG. I.



A square of 640 acres, is just a mile
square; consequently, all these lines are
just a mile long, or six miles of fencing in
the whole, to divide it into 9 fields, of 71
acres each; and as there is 320 perches in
a mile, the whole amount is - 1920

To this add, for a small inclosure or
two near the house, - 180
In all, - 2100
Improvement.

Improvement.		
2100 Perches of fencing,	l. 1. d.	
The ditch,	0 1 6	
The fets,	0 0 6	
The dead-hedge,	0 2 0	l. 1. d.
At -	0 4 0	* - 420 0 0
13 Gates, with posts, irons, painting, and paling at each end, at 1 l. 10 s.		19 10 0
The farm-house complete,		400 0 0
The barns,		150 0 0
The stable and cow-house,		60 0 0
The hog-sties, fowl-house, &c.		20 0 0
Marling, chalking, or claying, 640 acres, at 4 l.		2560 0 0
In such a soil it may be supposed that water may be		

Carry over, - £. 3629 10 0

• It is to be remarked, that I suppose in all improvements of this nature, much work to be done in a short time; for as to the allotment of a small sum annually to such works as these, it is but trifling. Large undertakings should be rejected if the undertaker is not convinced of the utility and profit; and consequently, to *begin* is imprudent. I therefore suppose my cultivator, either from particular experiments, or from general knowledge, to be convinced of the propriety of the improvement; and that, *once convinced*, he is *determined*. The perpetual rejection of proof, and fear of beginning with spirit, is the common fault of the *vulgar* both *great* and *small*. I do not write to such.

much

Brought over, £. 3629 10 0
 much wanting, that is, old
 ponds; we should therefore
 allow for new ones, suppose

Rent, at 1 s. £. 32 0 0

Tythe, * rates, &c.

at 8 s. 12 16 0

Total, £. 3774 6 0

5l. 12 s. 6 d. per acre.

Stock. Rent, &c.

Of 640 acres, at 1 s. † £. 32 0 0

Tythe, rates, &c. &c.

at 8 s. 12 16 0

Carry over, 44 16 0

* A remark here must be made by every reader; this farm is hired for vast improvements; consequently, the tythe will, in a few years, be worth ten times this sum; but I suppose my cultivator to agree with the clergyman at the same rate as for the farm; if he does not, he may be nearly ruined; it would be idle to suppose the contrary, is the same as supposing the improvement never to exist. For these reasons I suppose higher prices than common, that the cant objection of a want of men may not be urged. Shew me a country that complains of this want, and give me money for employment, men shall spring up like mushrooms.

† It is to be remarked, that the rent is reckoned so low on account of the noble improvement of raising expensive edifices, inclosing, and marling another man's land, which renders this rent better than five times as much in some cases.

End

(315)

Brought over, £. 44 16 0

Live stock.

18 Horses,	-	£. 270	00
1200 Sheep,	-	720	00
20 Cows,	-	100	00
3 Sows,	-	4	00
			1094 00

Implements.

A broad-wheeled			
waggon,	-	£. 70	00
Three narrow-wheeled			
ditto,	-	75	00
Eight carts,	-	80	00
Harness,	-	36	00
Ten ploughs,	-	15	15 00
Harrows and rollers,	-	7	00
Screens, bushels, forks,			
rakes, lines, &c. &c.	-	40	00
			323 15 00

Seed.

Seed for 106 acres of			
wheat,	-	£. 53	00
106 Of turnips,	-	2	13 00
Carry over,	-	£. 55	13 00
			1462 11 00

* I suppose wheat the winter-crop; and land thoroughly well managed, though very sandy, will produce it to profit; but if rye is substituted, the difference in seed will be but a trifle, and the product in money probably as great.

318 Of

(316)

o Brought over, £. 55 13 0 1462 11 0
 318 Of spring-corn, 159 0 0
 Ditto clover, rye-
 grafs, &c. &c. 79 10 0
 ———— 294 3 0

o Labour.

One earth on 106
 acres of wheat,* £. 3 10 8
 Sowing, - 1 6 6
 Harrowing, 0 13 3
 Water-furrowing, 0 2 6
 Reaping and Har-
 vesting, at 6 s. 31 16 0
 Thrashing, $2\frac{1}{2}$ qrs.
 per acre, 265 qrs.
 at 2 s. 26 10 0

Carrying out, 20
 at a time, 13
 journeys, - - - 1 6 0

Three earths on 318
 acres of spring-
 corn, - 31 16 0
 Sowing, - 3 19 10
 Harrowing, - 1 19 11
 Rolling, - 0 8 0

Carry over, £. 103 8 8 1756 14 0

* I suppose an acre and a half a day to be ploughed, which is not much in a light soil.

Mowing

(317)

Brought over, £.	103	8	8	1756	14	6
Mowing and har-						
vesting, at 4 s.	63	12	0			
Thrashing, 4 qrs.						
per acre, 1272						
qrs. at 1 s.	-	63	12	0		
Carrying out 277						
acres of barley,						
1110 qrs. 30 at a						
time, 37 journeys,	3	14	0			
Sowing clover, -	3	19	10			
Water-furrowing,	0	7	6			
Four earths on 106						
acres of turnip-						
land, -	14	2	8			
Sowing, -	1	6	6			
Harrowing, -	0	13	3			
Water-furrowing,	0	2	6			
Hand-hoeing twice,						
at 7 s. -	37	2	0			
Two earths on 106						
acres of fallow,	7	1	4			
Digging and cart-						
ing 500 loads of						
marle into farm-						
yard, 8 carts, 80						
Carry over, £.	299	2	3	1756	14	0
per						

(318)

Brought over, £. 299	2	3	17	56	14	0
per day, 6 days,						
at 1 l. 1 s. 8 d.						
2½ d. per load						
filling, and 3 s.						
driving, -	6	10	0			
Mixing 500 loads						
of marle with 456						
of dung, 956 in						
all, at 1 d. -	3	19	8			
Carting 956 loads,						
80 per day, 12						
days, at 17 s.	10	4	0			
Chopping and ra-						
king 106 acres						
of stubble, -	7	19	0			
Carting home, -	2	10	0			
Sundry small articles, 30	0	0	0			
				360	4	11

Sundry articles.

Shoeing, -	£. 10	16	0
Wear and tear, -	70	0	0
162 Qrs. of oats,	105	6	0
Hay, - -	100	0	0
Market expences,	4	0	0
Straw cut into chaff,	15	0	0
Cash in hand, -	200	0	0
			505 2 0
Carry over, £. 2622	0	11	

((319))

Brought over,	£.	2622	0	11
Expende of improvement,		3774	6	0
Total necessary to stock this				
farm,		£.	6396	6 11

The cattle I suppose to be purchased towards the end of the year, to be wintered on the straw and turnips, as the clover will be ready for them in the ensuing spring.

The farm is thrown into an excellent course, viz. 1. turnips; 2. barley or oats; 3. clover for three years; 4. wheat. The clover is left so long on the ground, that the roots may have matted the soil thoroughly, and given it more adhesion than natural to it, which has been found, from long experience, to be attended with excellent effects in many parts of the kingdom.

ANNUAL ACCOUNT.

Expences.	l.	s.	d.
Rent,		44	16 0
Seed for 106 acres of wheat,			
106 of spring-corn, 106 of			
turnips, and 106 of grass,		135	3 0
Carry over,	£.	179	19 0

Labour.

(320)

Brought over, £. 179 19 0

Labour.

On 106 acres of
wheat, as before, £. 65 4 11

One earth on 106
acres of spring-corn, 3 10 8

Sowing, - - 1 6 6

Harrowing, - - 0 13 3

Rolling, - - 0 2 6

Mowing and harvest-

ing, at 4 s. - 21 4 0

Thrashing, 4 qrs. per

acre, 424 qrs. at 1 s. 21 4 0

Carrying out 65 acres

of barley, 262 qrs.

30 at a time, 8

journeys, - - 0 16 0

Sowing clover, - 1 6 6

Water-furrowing, 0 2 6

Labour on 106 acres

of turnips, as be-

fore, - - 53 6 11

Digging, and cart-

ing, and mixing,

and recarting,

marle and dung,

as before, - 20 13 8

Carry over, £. 189 11 5 179 19 0

Labour

Brought over, £. 189 11 5 179 19 0

Labour on stubble,

as before, - - 10 9 0

Mowing, making,

and cocking 50

acres of clover, 12 10 0

Carting, stacking,

and thatching, - 7 0 0

Cutting chaff, - 3 0 0

Sundry small articles, 30 0 0

252 10 5

Sundry articles.

Shoeing, - £. 10 16 0

Wear and tear, - 70 0 0

Market expences, - 4 0 0

84 16 0

£. 517 5 5

Produce. l. s. d.

265 Qrs. of wheat, at 2 l. - 530 0 0

262 Qrs. of barley, at 16 s. - 209 12 0

20 Cows, - 100 0 0

Profit on 1200 sheep, the re-

gular flock at - 600 0 0

1439 12 0

Expences, - 517 5 5

922 6 7

Interest, - 319 16 0

Profit, - £. 602 10 7

Vol. II. Y The

The capital pays 14 l. 8 s. *per cent.* which profit is very considerable upon a farm wherein the tenant is at all the expence of inclosing, building, manuring, &c. &c. in short, of converting a mere waste into a well-cultivated farm; nor can I omit remarking, that this profit is a very great encouragement to all who have any thoughts of hiring such lands; for many circumstances recommend them, in a good measure, in preference to those that are already cultivated. These lands are, in their nature, perfectly compact: there are very seldom any roads or paths through them. Tenants, when at such expences as here supposed, are tied to the observance of no rules or modes of cultivation, which indeed would be highly ridiculous upon such soils. And lastly, very long leases are always granted; for no man in his senses would be at such vast expences, which convert wastes and wilds into well-cultivated countries, unless he was sure of a term long enough to reimburse him. No landlord, I think, could refuse a lease of 30 or 40 years; 42 is not an uncommon term in some countries, where improvements are less

less expensive than those which I have here stated. The gentleman's account of this farm is as follows :

<i>Improvement.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The fencing,	- - -	420	0	0
27 per cent. on 157 l. 10 s.	-	42	7	0
Gates, &c.	- - -	19	10	0
Buildings,	- - -	630	0	0
Ponds,	- - -	100	0	0
27 per cent. on 50 l.	-	13	10	0
Rent,	- - -	44	16	0
Manuring,	- - -	2500	0	0
Suppose 1000 l. of this sum				
labour, 27 per cent. on it is		270	0	0
		<u>£. 4100 3 0</u>		
<i>Stock.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	- - -	44	16	0
Live stock,	- - -	1094	0	0
Implements,	- - -	323	15	0
Seed,	- - -	294	3	0
Labour,	- - -	£. 360	4	11
27 per cent.	- - -	97	4	0
		<u>457 8 11</u>		
Sundry articles,	- - -	505	2	0
		<u>2719 4 11</u>		
Improvement,	- - -	4100	3	0
Total necessary to stock this	- - -	<u>£. 6819 7 11</u>		
farm,	- - -			
Y 2		ANNUAL		

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	- - -	44	16	0
Seed,	- - -	135	3	0
Labour,	- £ 252	10	5	
27 per cent.	- 68	0	0	
		320	10	5
Sundry articles,	- - -	84	16	0
		£. 585	5	5
<i>Produce,</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	- - -	1439	12	0
Expences,	- - -	585	5	5
		854	6	7
Interest,	- - -	340	19	0
Profit,	- - -	£. 513	7	7

The capital pays 12 *l.* 10 *s.* per cent.
 This calculation shews strongly the importance of gentlemen's improving waste lands, not only to the nation, but also to themselves; for 12 per cent. is no trifle, to gain out of land that never paid a shilling, and a profit sufficient, upon numerous wastes in this kingdom, to raise immense fortunes.

N^o 2.

Variation the first.

The same farm, under sainfoine.

The improvement the same as

before, £. 3774 6 0

Stock.

(325)

Stock. l. s. d.

Rent, &c. - - £. 44 16 0

Live Stock.

18 Horses, - £. 270 0 0
300 Cows, - 1500 0 0
30 Sows, - 50 0 0

1820 0 0

Implements.

The same as before, except
the broad-wheeled waggon, 253 15 0

Seed.

For 550 acres of
barley and oats, £. 275 0 0
Ditto sainfoine, 275
qrs. at 1 l. - 275 0 0
Ditto turnips, 90
acres, - - 2 5 0

552 5 0

Labour.

Five earths on 550
acres of spring-
corn-land, - £. 91 13 4
Sowing, - - 6 17 6
Ditto the sainfoine, 13 15 0
Harrowing, - 6 17 6
Rolling, - 8 10 0

Carry over, £. 119 13 4 2670 16 0
Y 3 Mowing

(326)

Brought over, £.	119	13	4	2670	16	0
Mowing and har-						
vesting, at 4 s.	110	0	0			
Thrashing, 4 qrs. per						
acre, 2200 qrs. at						
1 s.	-	-	110	0	0	
Carrying out 2038						
qrs. 30 at a time,						
67 journeys, -			6	14	0	
Four earths on 90						
acres of turnip-						
land, - -			12	0	0	
Sowing, - -			1	2	6	
Harrowing, -			0	7	6	
Hand-hoeing, at 7 s.	31	10	0			
Drawing the turnips,						
and carting them						
home, at 7 s. 6 d.	33	15	0			
Digging and carting						
1000 loads of						
marle, &c. into						
the farm-yard, 20						
per day, 50 days,						
at 5 s. 5 d.	-		13	10	0	
Mixing 1000 loads						
of marle with 1500						
of dung, 2500,						
at 1 d.	-		10	8	4	
Carry over, £.	449	0	8	2670	16	0
						Carting

(327)

Brought over, £. 449 0 8 2670 16 0
Carting 2500 loads,
20 per day, 125
days, at 4 s. 3 d. 26 11 3
Sundry small articles, 30 0 0

————— 505 11 11

Sundry articles.

The same as before, 505 2 0
Add, straw bought, 70 0 0

————— 575 2 0

3751 9 11

Improvement, - 3774 6 0

£. 7525 15 11

Deduct the product, by sale of

12 horses, 5 carts, harness,
and six ploughs; they cost

263 l. - - - 150 0 0

Total necessary to stock, £. 7375 15 11

ANNUAL ACCOUNT.

Expences. l. s. d.

Rent, - - - 44 16 0

Seed for 90 acres of turnips, 2 5 0

Labour

On 90 acres of turnips, as before, £. 78 15 0

Carting and mixing

manure, ditto, 50 9 7

Carry over, £. 129 4 7 47 1 0

Y 4

Mowing,

Brought over, £.	129	4	7	47	1	0
Mowing, making,						
carting, stacking,						
and thatching 300						
acres of sainfoine, 100	0	0				
Sundry small articles, 30	0	0				
				259	4	7

Sundry articles.

Straw cut into chaff, £.	4	0	0
Shoeing, -	3	12	0
Wear and tear, -	30	0	0
Market expences, -	3	0	0
Straw, - -	70	0	0
			110 12 0
			£. 416 17 7

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
300 Cows, - - -		1500	0	0
Expences, - - -		416	17	7
		1083	2	5
Interest, - - -		368	15	0
Profit, - - -		£. 714	7	5

The capital pays 14 *l.* 13 *s.* *per cent.*
 It is very remarkable, that these different
 modes of conducting the same farm should
 prove so very similar in the profit, as to
 differ only 5 *s.* *per cent.* Such a number
 as 300 cows being kept on a tract of land,
 lately

lately so wild and reputedly barren, may startle some of my readers; but not, if they consider the excellent order I suppose the farm to be in. As to the propriety of converting sainfoin to the use of feeding cows, it cannot be disputed, as it is the common practice of many tracts of country in this kingdom. The gentleman's account of this farm is as follows:

<i>Improvement.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same as before,	-	4100	3	0
Stock, ditto,	-	3751	9	11
27 per cent. on 505 l. 11 s. 11 d.	-	136	7	0
		<u>£. 7987 19 11</u>		
Deduct the product of sale,				
as before,	-	150	0	0
Total necessary to stock,		<u>£. 7837 19 11</u>		

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	- - -	44	16	0
Seed,	- - - -	2	5	0
Labour,	- £. 259 4 7			
27 per cent.	- 69 18 0			
		329	2	7
Sundry articles,	- -	110	12	0
		£. 486	15	7
<i>Produce.</i>				

	<i>Produce,</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The same as before,	1500	0	0	
Expences,	486	15	7	
	1013	4	5	
Interest,	391	17	0	
Profit,	£. 621	7	5	
The capital pays 12 l. 18 s. per cent.				

N^o 3.*Variation the second.**The same farm let after improvement.*

For this purpose, the business of improvement, in every article, I suppose to be the same as before, but let to a tenant as soon as completed.

	<i>Improvement,</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
As before,	3774	6	0	

In the state it is then in, I suppose it to let very readily for 12 s. per acre; no improbable supposition, if we consider the perfect state of every thing throughout the farm; the buildings all new; and consequently well contrived and convenient; the fences in excellent order, the gates, &c. the same, and the whole farm covered at the rate of 100 loads per acre of marle, chalk, or clay.

ANNUAL

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - - - -	44	16	0
<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 640 acres, at 12 s.	-	384	0	0
Expences,	- - - - -	44	16	0
		339	4	0
Interest,	- - - - -	188	14	0
Profit,	- - - - -	£. 150	10	0

The capital pays 9 *l. per cent.* *

This calculation proves how greatly advantageous the improvement of waste lands is to gentlemen: here is a profit of 9 *per cent.* with an allowance of 44 *l.* 16 *s.* for rent; whereas numbers of landlords have large tracts of such soils that yield them *no* rent; the improvement of which would be consequently the more beneficial. It is to be remembered, that this profit of 9 *per cent.* is certain, independent of the chances of business, subject to no losses, and, requiring no time or attention, leaves the improver at leisure to undertake any fresh business of the same kind, or any

* It is scarcely worth while to give a separate calculation for a gentleman, because the variation is only 283 *l.* in the capital; which, in the annual profit, will make a difference only of a few shillings.

other;

other; all which are advantages of much consequence, and render 9 *per cent.* profit equal to a much higher rate, subject to many contingencies.

N^o 4.

Variation the third.

Six hundred and forty acres of muir-land, improved with paring and burning and lime, and fenced with walls.

This tract of land I suppose to be, naturally, in the state of most of the muirs in the north of England, and many commons in the south: the spontaneous growth, ling; and abounding with stones sufficient for the buildings, and also the walling.

The waste lands of this sort are immensely extensive in the north of England and in Scotland, insomuch that a man who would undertake the culture of such, might pick and chuse, in almost every county, out of many thousands of acres. Some circumstances wherein there are variations must, however, be noted; for instance, under many of the muirs, limestone is found in strata even near the surface. In such the expence of liming is much less than
9 where

where carriage is added to the cost of burning. In some muirs also, the large grit-stones are found in greater plenty than requisite for the buildings, &c. consequently, the expence of removal is something. It would be endless to form distinct calculations for all these kinds of variations; but I apprehend the nearest way to be tollerably correct, will be to allow something *per acre* in the estimate of improvement, for contingencies of this nature; as it is not to be supposed, that every article will turn out just in proportion to each other, and as convenience requires.

Improvement.

2100 Perches of fencing, dry	l.	s.	d.
walls, at 4 s. 8 d.	-	490	0 0
13 Gates, with posts, irons, and			
painting, at 1 l.	-	13	0 0
The farm-house complete,	-	150	0 0
The bar,	-	20	0 0
The stable,	-	30	0 0
The cowhouse,	-	80	0 0
The hogstie, fowlhouse, &c.	-	40	0 0
Paring and * burning, at 1 l.	-	640	0 0
Carry over,	£.	1463	0 0

* 15 s. to 16 s. 6 d. is, through the north of England, the common price for this work; but, as I suppose it all to be done in the first year, I allow 1 l. which is ample enough to draw any number of men together.

Liming,

Brought over,	£. 1463	00
Liming, at 1 <i>l.</i> 10 <i>s.</i> * -	960	00
Rent, at 6 <i>d.</i> † -	£. 16	00
Tythe and rates, &c.		
at 8 <i>s.</i> - - - - -	6	80
		22 80
Incidents in the improvement; such as bringing stones, or carrying them away, filling holes, &c. &c. at 5 <i>s.</i> per acre,	160	00
Total, - - - - -	£. 2505	80
4 <i>l.</i> 1 <i>s.</i> per acre.		

Stock.	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, - - - - -	22	8	0

Live stock.			
18 Horses, - - - - -	270	00	

Implements.			
Three narrow-wheeled waggon, - - - - -	£. 75	00	
Three carts, - - - - -	30	00	
Harness, - - - - -	36	00	
Carry over, - - - - -	£. 141	00	292 80

• This price is far beyond the fact, where limestone is under the surface, or even within a mile or two of the farm; but, to obviate objections of underrating any article, I state the sums high.

† This is reckoned, that the article may not seem absolutely forgot; but thousands of these acres exist, which landlords (for such management) would pay rent *with*.

10 Ploughs,

Brought over, £.	141	0	0	292	8	0
10 Ploughs,	15	15	0			
Harrows and rollers,	7	0	0			
Screens, bushels, forks,						
lines, shovels, &c.						
&c. &c.	40	0	0			
				203	15	0

Seed.

For 640 acres of turnips, 16 0 0

Labour.

Three earths on 640						
acres,	£.	64	0	0		
Harrowing,	8	0	0			
Sowing,	8	0	0			
Hand-hoeing, at						
10 s. *	320	0	0			
Sundry small articles,	30	0	0			
				430	0	0

Sundry articles.

Shoeing,	£.	10	16	0		
Wear and tear,	8	40	0	0		
162 Qrs. of oats,	105	6	0			
Carry over, £.	156	2	0	942	3	0

This work is done in most of the hoeing counties of England at 3 s. or 4 s. the first hoeing, and 2 s. or 2 s. 6 d. the second; but I allow 6 s. and 4 s. on account of hoeing not being common every where in the north; consequently, the work would be the dearer.

Hay,

Brought over,	£. 156	2	0	942	3	0
Hay,	-	80	0	0		
Market expences,	-	1	10	0		
Straw cut into chaff,	15	0	0			
Cash in hand,	-	200	0	0		
				<u>452</u>	<u>12</u>	<u>0</u>
				£. 1394	15	0

Produce.

640 Acres of turnips, sold to *L. s. d.*
 be fed off with sheep, at 2 *l.* * 1280 0 0

Second year. 1 5 2

Rent, &c. - - - 22 8 0

Seed.

For 640 acres of bar-
 ley and oats, £. 320 0 0
 Ditto grafs-seeds, 640 0 0
960 0 0

Labour.

Three earths on 640
 acres, - £. 64 0 0
 Sowing, - 8 0 0
 Carry over, £. 72 0 0 982 8 0

* It may, in a few places, be objected, that such a quantity of turnips would be of difficult sale; but in most counties there are sheep-graziers that buy five times the quantity. To obviate such objections, I have reckoned these at but half the price of burnt earth turnips in the north of England.

Harrowing

(337)

Brought over,	£. 72	00	982	80
Harrowing, -	8	00		
Rolling, -	10	00		
Sowing the grafs-				
feeds, -	32	00		
Mowing and har-				
vesting, at 4 s.	128	00		
Thrashing, 4 qrs. per				
acre, 2560 qrs.				
at 1 s. -	128	00		
Carrying out 2398				
qrs. of barley, 30				
at a time, 3 wag-				
gons and 6 men,				
79 journeys, -	23	14	00	
Sundry small articles, 30	00			
			431	14 00

Sundry articles.

Shoeing, and wear				
and tear, -	£. 50	00		
Hay, -	80	00		
Market expences, -	3	00		
Straw cut into chaff, 15	00			
			148	00
			£. 1562	20

Produce.

2398 Qrs. of barley, at 14 s.* 1678 12 0

Third year.

Rent, - - - 28 8 0
 200 Cows and dairy-furniture, 1000 0 0

Labour.

Mowing and making
 640 acres of hay, £. 160 0 0
 at 5 s. - - -
 Carting and stacking,
 at 3 s. - - - 96 0 0
 Thatching, - - - 5 0 0
 Carting 1000 loads
 of black muiry
 earth, or peat, or
 pared surface, into
 farm-yard, 30 per
 day, 33 days, at
 Carry over, £. 261 0 0

* It is here to be remarked, that some muirs will not yield barley to advantage; but there are not many such *when well managed*; nor is the barley of so good a quality as that from cultivated soils. I therefore, in compliance with this circumstance, charge the barley at 2 s. per quarter lower than before; but I take it this notion arises either from bad culture, or some peculiarly cold spots. Oats would be equally profitable, as the quantity would be much larger. The straw of this corn is all stacked for succeeding use.

3 d. per

Brought over, £. 261	0	0	10	2	8	0
3d. per load filling,	-					
and 2d. driving,						
10 soper day,	-	16	10	0		
Mixing 1000 loads						
of dung with 1000						
of earth, 2000,						
at 1 d. -	-	8	6	8		
Carting and spread-						
ing 2000 loads, 30						
per day, 66 days,						
at 7s. -	-	23	2	0		
Cutting chaff, -	-	3	0	0		
Sundry small articles, 30		0	0			
					34	18 8

Sundry articles.

Liming, at 17. 10s. £. 960	0	0			
Oats, -	-	105	6	0	
Shoeing, and wear					
and tear, -	-	30	0	0	
Market expences, 2		10	0		
					1097 16 0
					£. 2462 2 8

Produce. l. s. d.

400 Tons of hay, -	-	1000	0	0	
Product by sale of 12 horses,					
harness, ploughs, &c. they					
cost 256 l. -	-	180	0	0	

£. 1180 0 0

Z 2

RECAP-

RECAPITULATION.		<i>L. s. d.</i>
Improvement, -		2605 18 0
Stock and first year, -		1395 15 0
Interest, -		200 00 0
Produce of the first year inferior to the expence of the second, -		282 2 0
Interest, -		214 2 0
Produce of the second year below the expence of the third, -		783 10 8
Interest, -		253 5 0
Total necessary to stock, =		<u>£. 5734 2 8</u>

I should here observe, that I have laid down this farm to grass, under the supposition that such management is necessary. I apprehend, that keeping these soils in tillage is acting very contrary to their nature; for all the trials that have hitherto been made of cultivating muirs, have been in laying them down to grass; as they have been found to answer, in many instances, but poorly in tillage. This is the experience of common cultivators; how far it is owing to an improper management I shall not presume to say; but as this method happens to be very consonant with

an

an almost universally profitable husbandry, (that of laying to grafs) I have calculated upon it. In some muirs that are not, situated very high, and of an uncommonly good soil, some improvements have been made in tillage; but I chuse to form these estimates upon circumstances tending rather to the unfavourable than the favourable side, that no one in real practice may find himself disappointed from building on foundations which, in some situations, might prove imaginary.

I suppose this farm, so improved, to carry 200 cows. This is a very modest supposition, considering the greatness of the expences in the improvement; but those who are the least acquainted with the muiry soils, know that they do excellently well in grafs, and not many improvements are so well conducted as this supposed one. Another circumstance should not be forgot, which is, that the situation and neighbourhood of muirs give one prodigious advantage respecting manure. The purchase of straw or stubble is unnecessary; for any quantity of young ling is to be had for littering the farm-yard, which, laid on a

thick bed of the virgin surface mould of the muirs, will be an incomparable foundation to fodder the cattle upon. However, as this advantage may not be enjoyed in all places, I shall suppose something annually expended in straw, but not so much as in other situations.

ANNUAL ACCOUNT.

Expences. *l. s. d.*

Rent, &c. - - - 22 8 0

Labour.

Mowing and making

300 acres of hay,

at 5 s. - £. 75 0 0

Carting and stacking,

at 3 s. - - 45 0 0

Thatching, - 3 0 0

Carting 2000 loads

of virgin-mould

into the farm-

yard, 30 per day,

66 days, at 10 s. 33 0 0

Mixing 2000 loads

of dung with 2000

of earth, 4000,

at 1 d. - 16 13 4

Carry over, £. 172 13 4 22 8 0

Carting

(343)

Brought over, £. 172 13 4 22 8 0
Carting and spread-
ing 4000 loads, 132
days, at 7 s. - 46 4 0
Cutting chaff, - 0 15 0
Carting 50 waggon-
loads of ling, or
other young spon-
taneous growth,
to the farm-yard ;
cutting, loading,
and driving, at 5 s. 12 10 0
Sundry small articles, 20 0 0

252 2 4

Sundry articles.

Shoeing, - £. 3 0 0
Wear and tear, - 20 0 0
Market expences, - 3 0 0
Straw, - 30 0 0
Oats, 45 qrs. - 29 5 0

85 5 0

£. 359 15 4

Produce.

l. s. d.

200 Cows, - - 1000 0 0
Expences, - - - 359 15 4

640 4 8
Interest, - - - 286 14 0
Profit, - - - £. 353 10 8

Z 4

The

The capital pays 11 *l.* 3 *s.* *per cent.*

I have made every allowance in this account that the most backward of my improvers can demand. An account of such soils, even when in grass, requiring more manure than others, I have sketched a great expence of horses, labour, and waggons, carts, &c. kept for the business of manuring; and for that purpose also supposed the stock to be cows; whereas the most profitable use of a farm all grass, is to buy lean cattle in spring, and sell them out fat in autumn, which precludes all expences of this sort. I have also under-reckoned the produce; I should have allowed a greater number of cows: In a word, the real profit of such a farm would, I am confident, be much greater than I have stated it.

But if, under the above circumstances of farming, an absolute waste, above 11 *per cent.* is to be made, how much greater would the profit be, if the land lay so contiguous to other farms, as to enable the occupiers to hire it without the expence of raising buildings, &c. ? and yet this is the case with almost ever *myrside* farmer in the north,

north, who might, at any time, add such tracts of waste land to their farms, and take little or much, as suited them, and without fixpence of rent to pay: but instead of any thing of this sort, they let their own farms, (which, perhaps, were once in good order) degenerate almost to as wretched a state as the muirs themselves: and I apprehend it is the example of such vile slovens that affect even landlords themselves; for to what other source can we attribute *their* negligence?—The gentleman's account of this farm is as follows:

<i>Improvement.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
As before,	- - -	2605	8	0
27 per cent. on 800 <i>l.</i> labour,		216	0	0
		£. 2821 8 0		

<i>Stack.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
As before,	- - -	1395	0	0
27 per cent. on 430 <i>l.</i> labour,		116	2	0
		£. 1511 2 0		

<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
640 Acres of turnips,	-	1280	0	0

<i>Second year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The former total,	- - -	1562	2	0
27 per cent. on 431 <i>l.</i> 14 <i>s.</i>	-	116	7	0
		£. 1678 9 0		

Produce,

(346)

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
As before,	-	1678	12	0

	<i>Third year.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The former total,	-	2462	2	8
27 per cent. on 341 l. 18 s. 8 d.	-	92	1	0
		<u>2554</u>	3	8

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
As before,	-	1180	0	0

RECAPITULATION.

Improvement,	£. 2821	8	0	
Stock,	-	1511	2	0
		<u>4332</u>	10	0
Interest,	-	-	216	12 0
Produce of the first year short of the expences of the second,		398	9	0
Interest,	-	-	236	10 0
Produce of the second year short of the expences of the third,		875	11	8
Interest,	-	-	280	5 0
Total necessary to stock,	£. 6339	17	8	

ANNUAL ACCOUNT.

	<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The former total,	-	359	15	4
27 per cent. on 252 l. 2 s. 4 d.	-	-	-	-
the labour,	-	68	0	0
		<u>£. 427</u>	15	4

Produce.

(347)

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	- - -	1000	0	0
Expences,	- - -	427	15	4
		<u>572</u>	4	8
Interest,	- - -	316	19	0
Profit,	- - -	<u>£. 255</u>	5	8

The capital pays 9 l. per cent.

N^o 5.

Variation the fourth.

The same farm let after improvement.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
The expence of improving,			
the same as before, -	2605	8	0
Stock and first year ditto, -	1395	15	0
Interest, - - -	200	0	0
Produce of the first year below			
the expence of the second,	282	2	0
Interest, - - -	214	2	0
	<u>£. 4269</u>	3	0

From this we must deduct the
sale of the stock: it cost,

Horses, - - -	£. 270	0	0
Implements, - -	203	0	0
	<u>£. 473</u>	0	0
Total necessary to stock, -	<u>£. 3969</u>	3	0

ANNUAL ACCOUNT.

	<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c. - - -	- - -	22	8	0
		<u>6</u>		
	<i>Produce.</i>			

Produce.

Rent of 640 acres of grass- land, at 15 s.	-	-	-	480	0	0
Expences,	-	-	-	22	8	0
				457	12	0
Interest,	-	-	-	198	0	0
Profit,	-	-	-	£. 259	12	0

The capital pays 11 l. 10 s. *per cent.*

The gentleman's account is as follows:

Improvement,	-	-	£. 2821	8	0
Stock,	-	-	1511	2	0
Interest,	-	-	216	12	0
Produce of the first year short of the expences of the second,			398	9	0
Interest,	-	-	236	10	0
			£. 5184	1	0
Deduct product of sale,	-	-	300	0	0
Total necessary to stock,	-	-	£. 4884	1	0

ANNUAL ACCOUNT.

Expences.

Rent, &c.	-	-	-	22	8	0
-----------	---	---	---	----	---	---

Produce.

As before,	-	-	-	480	0	0
Expences,	-	-	-	22	8	0
				457	12	0
Interest,	-	-	-	244	4	0
Profit,	-	-	-	£. 213	8	9

The

The capital pays 9 l. 8 s. *per cent.* which I apprehend will be thought considerable; for it depends on no chance of business, but is a certainty; that is, as much a certainty as the rental of any estate. Many gentlemen buy estates, and make $2\frac{1}{2}$ or 3 *per cent.* of their money, while they might reap 9, 10, and 12, by expending the same sums upon the improvement of the land they already possess.

No 6.

Variation the fifth.

Six hundred and forty acres of bog-land improved.

There are many sorts of boggy marshy soils in this kingdom, too many indeed to assign a calculation to each; but there is no necessity for that, nor much use in it, as the grand heads of improvement for them all is the same, viz. draining. The great mischief of these soils is the excessive wetness of them, and the palpable remedy for it is nothing but draining. There is no possibility, in a moderate compass, to state every part of the improvement of marshes and bogs; it will, therefore, be the clearest and most comprehensive method,
in

in this estimate, to confine the particulars to such as are most striking, and allow for minuter articles.

The fences in this farm must be much more numerous than in the preceding ones, because the ditches are the chief improvement.

I suppose the division as in Fig. II.

In this sketch there are 12 miles of fencing, and 36 fields, of 18 acres each.

In 12 miles are 3840 perches. The dotted lines represent small drains, the extent 36 miles, or 11,520 perches.

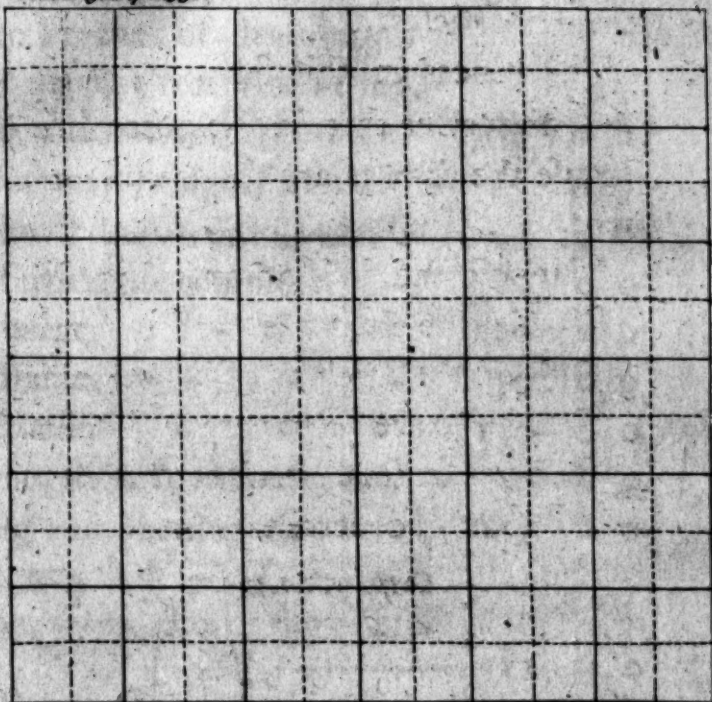
Improvement.

3840 Perches of ditching, 10	
feet wide at top, 6 feet deep,	
and 4 feet wide at bottom,	1. s. d.
at 3 s. *	576 00
Sets of willow, fallow, osier,	
alder, or any quick growing	
acquatic, at 1 s. per perch, †	192 00
Carry over, - £.	768 00

* This price, in firm ground, would be too low; but it is high for soft marsh or bog land.

† These are to be planted on the bank of the earth thrown out of the drains; but I do not mean them for trees, but hedges, to be plashed when high enough: white thorn on dry soils is preferable, but not on such as these.

Vol. II. Fig. II. pa. 350.



1817

1818

1819

1820

1821

1822

1823

1824

1825

1826

1827

1828

1829

1830

1831

1832

1833

Brought over,	£.	768	0	0
45 Gates, posts, paling, &c.				
&c. at 1 l. 10 s.	-	-	67	10 0
11,520 Perches of draining, 4				
feet deep, 5 feet wide at top,				
and 2 at bottom, at 1 s. 4 d.		768	0	0
45 Gateway-bridges, at 1 l. *	-	45	0	0
576 Small drains, ditto, at 1 s. 6 d.		43	4	0
The farmhouse complete,	-	300	0	0
The barns,	-	100	0	0
The stable,	-	70	0	0
Cowhouse,	-	150	0	0
The hogsties, fowlhouse, &c.	-	50	0	0
Paring and burning 640 acres,		640	0	0
Rent, at 3 d. †	-	£. 8	0	0
Tythe, rates, &c.		3	4	0
			11	4 0
Incidents,	-	200	0	0
Total,	-	£. 3212	18	0
Stock.			l.	s. d.
Rent, &c.	-		11	4 0
Carry over,	£.	11	4	0

* These should be made of whatever is cheapest, either planks to lay over, or large billet and faggot wood to fill them up with: the price is sufficient for any country.

† This is added but little more than for form: such tracks are worth nothing to a landlord; a wise one would go halves in the improvement rather than not have it done; or at least erect the buildings.

Live

(352)

Brought over, £. 11 4 0

Live stock.

20 Horses, - 300 0 0

Implements.

The same as in last farm, - 203 15 0

Labour.

Four ploughings, of
640 acres, - £. 128 0 0

Four harrowings, - 32 0 0

Burning the turfs, &c.

that were left before,

at 2 s. 6 d. - 80 0 0

Chopping and beating

clots of turf or peat, 10 0 0

Water-furrowing, at

2 s. 6 d. per acre, 80 0 0

Sundry small articles, 40 0 0

370 0 0

Sundry articles.

Shoeing, and wear and

tear, - £. 40 0 0

180 Qrs. of oats, - 106 12 0

Straw cut into chaff, 16 0 0

Hay, - 100 0 0

Cash in hand, - 200 0 0

462 12 0

£. 1347 11 0

Second

(353)

<i>Second year.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	11	4	0
<i>Seed.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>	
For 640 acres of oats,	320	0	0	
Ditto grafs-seeds,	640	0	0	
		960	0	0

<i>Labour.</i>				
One earth on 640				
acres,	-	£. 32	0	0
Sowing,	-	8	0	0
Harrowing,	-	8	0	0
Chopping, hacking,				
and clotting,	-	16	0	0
Sowing the grafs-seeds,	32	0	0	
Rolling,	-	4	0	0
Water-furrowing,	80	0	0	
Mowing and harvest-				
ing, at 4 s.	-	128	0	0
Thrashing, 5 qrs. per				
acre, 3200 qrs. at 1 s.	160	0	0	
Carrying out 3020				
qrs. 40 at a time,				
75 journeys,	-	22	10	0
Cutting chaff,	-	3	10	0
Sundry small articles,	30	0	0	
		524	0	0
Carry over,	£. 1495	4	0	

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A a

Sundry

(354)

Brought over, £. 1495 4 0

Sundry articles.

Shoeing, and wear

and tear, - £. 40 0 0

Hay, - - 100 0 0

140 0 0

£. 1635 4 0

Produce.

3020 Qrs. of oats, at 12 s. -

1812 0 0

Third year.

Expences.

Rent, &c. -

11 4 0

200 Cows, -

1000 0 0

30 Sows, -

40 0 0

Dairy furniture, -

80 0 0

Labour.

Mowing and making

640 acres of hay,

at 5 s. - £. 160 0 0

Carting and stack-

ing, at 3 s. - 96 0 0

Thatching, -

5 0 0

Carting, mixing, and

spreading 2000

loads of peat, &c.

with 2000 of

dung, as in last

farm, -

95 17 4

Carry over,

£. 356 17 4 1131 4 0

(355)

Brought over, £.	356	17	4	1131	4	0
Cutting chaff, -	0	15	0			
Sundry small articles, 30	0	0	0			
				387	12	4

Sundry articles.

Shoeing, and wear						
and tear, -	£.	23	0	0		
Market expences, -	3	0	0			
54 Qrs. of oats, at 13s.	35	2	0			
				61	2	0
				£.	1579	18 4

RECAPITULATION. l. s. d.

Improvement, -	3212	18	0
Interest, -	160	12	0
Stock, &c. -	1347	11	0
Interest, -	227	19	0
Second year, -	1635	4	0
Interest, -	309	14	0
Total stock necessary, £.	6893	18	0

ANNUAL ACCOUNT.

Expences. l. s. d.

Rent, -	11	4	0
---------	----	---	---

Labour.

Mowing, making,			
and stacking 300			
acres of hay, £.	75	0	0
Carry over, £.	75	0	0
		11	4 0
A a 2			Carting

(356)

Brought over,	£. 75	00	11	4	0
Carting and stacking,	45	00			
Thatching,	-	3	00		
Carting, mixing, and					
spreading manure,	95	17	4		
Cutting chaff,	-	15	0		
Scouring out 2000					
perches of drain-					
ing, at 6 s.	-	50	00		
Sundry small articles,	20	00			
			289	12	4

Sundry articles.

Shoeing and wear					
and tear,	-	£. 23	00		
Market expences,	-	3	00		
Oats,	-	35	20		
Straw,	-	30	00		
			91	20	
			£. 391	18	4

Produce.

			l.	s.	d.
200 Cows,	-	-	1000	00	00
Expences,	-	-	391	18	4
			608	1	8
Interest,	-	-	344	13	0
Profit,	-	-	£. 263	8	8

The capital pays 8 l. 16 s. per cent.

The profit of this improvement is not very great; but I apprehend the product here,

here, as in the former farm, underrated; for the richness of wet boggy land is generally asserted and supposed to be great, and I believe with reason. The feeding it with cows makes it much less profitable than if applied to keeping young cattle, &c. upon it, or to fattening little Scotch runts; but lest any should object to its being applied to such uses, I have supposed cows the stock. — There are some bogs which would not admit the preceding management, but not many; and, as I remarked before, it is impossible to vary the calculations to each instance that can be produced. The gentleman's account is as follows:

Improvement.

As before, - £. 3212 18 0

27 per cent. on

1984 l. labour, 535 13 0

3748 11 0

Interest, - -

187 8 0

Stock, -

£. 1347 11 0

27 per cent. on 370 l. 99 18 0

1447 9 0

Interest, - -

259 15 0

Carry over, £. 5643 3 0

A a 3

Second

(358)

Brought over,	£. 5648	3 0
Second year,	£. 1635	4 0
27 per cent. on 5241.	141	9 0
		1776 13 0
Interest,	-	348 11 0
Total necessary to stock,	£. 7768	7 0

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The former total,	-	391	18	4
27 per cent. on 289 l.	-	78	0	0
		£. 469	18	4
<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	-	1000	0	0
Expences,	-	469	18	4
		530	1	8
Interest,	-	388	0	0
Profit,	-			
		£. 142	1	8

The capital pays 7 l. per cent, which I think is much too low a profit for such an undertaking in the hands of a gentleman. If it is let, the account will stand thus.

Nº 7.

Variation the sixth.

The same farm let after improvement.

The improvement, whether for this purpose or for farming, is the same; and
as

as the former recapitulations extend no farther than necessary here, the two accounts will be clear in a very few figures. First, the farmer.

Expended as before, to the end *l. s. d.*
of the second year, - 6893 18 0

Deduct the produce
of the second, *£. 1812 0 0*

And sale of the
stock: it cost,
horses 300 *l.* and
implements, 203 *l.* 350 0 0

2162 0 0
Total necessary to stock, *£. 4731 18 0*

The whole 6893 *l.* must be in hand; but the 2162 comes in so soon to pay it off, that it would be absurd to reckon the whole as necessary.

ANNUAL ACCOUNT.

<i>Expences.</i>			<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	-	-	11	4	0
<i>Produce.</i>			<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 640 acres, at 15 <i>s.</i>	-	-	480	0	0
Expences,	-	-	11	4	0
			468	16	0
Interest,	-	-	236	1	0
Profit,	-	-	£. 232	15	0

A a 4

The

The capital pays 9 *l.* 18 *s.* *per cent.*

The gentleman's account follows :

Expended as before, to the end	<i>l.</i>	<i>s.</i>	<i>d.</i>
of the second year, -	7768	7	0
Deduct as in last account, -	2162	0	0
Total necessary, -	<u>£. 5606</u>	<u>7</u>	<u>0</u>

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, -	-	11	4	0
<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, at 15 <i>s.</i> -	-	480	0	0
Expences, -	-	11	4	0
		468	16	0
Interest, -	-	280	6	0
Profit, -	-	<u>£. 188</u>	<u>10</u>	<u>0</u>

The capital pays 8 *l.* 7 *s.* *per cent.*

which profit, as it is liable to no contingencies, is worth undertaking the improvement for, to any gentleman more conveniently situated for these kind of soils than others ; but if all are equal to him in that respect, it appears that this is the least advantageous.

I should, however, in justice, remark, that many bogs and marshes now in being, would, if converted (as I have supposed) into

into grass-fields, pay more than twice fifteen shillings rent; but, to prevent objections, I calculate upon moderate data. If one attacks me on the score of supposing a higher rent than the truth, let him not forget that there are others open-mouthed against me for stating too low an one: but as it is impossible, in one series of estimates, to embrace all variations, so it is equally impossible to form a calculation for each; consequently, the only method to escape the difficulty was, to state the mediums.

RECAPITULATION OF THIS CHAPTER.

Stock requisite for the preceding farms.

N^o. I. 640 Acres of light sandy soil; improved by marle, chalk, or clay, and fenced with hedges and ditches,

	<i>l.</i>	<i>s.</i>	<i>d.</i>
-	6396	6	11

Ditto a gentleman, - 6819 7 11

N° II. The same farm
under sainfoine, - - 7375 15 11

Ditto a gentleman, - 7837 19 11

N°III. The same farm let
after improvement, - - 3774 6 0

N^o IV, 640 Acres of muir-
land, improved with paring,

burning,

burning, and lime, and fenced

with walls, - - - 5734 2 8

Ditto a gentleman, - - 6339 17 8

N° V. The same farm let

after improvement, - - 3969 3 0

Ditto a gentleman, - - 4884 1 0

N° VI. 640 Acres of bog-

land improved, - - - 6893 18 0

Ditto a gentleman, - - 7768 7 0

N° VII. The same farm let

after improvement, - - 4731 18 0

Ditto a gentleman, - - 5606 7 0

Annual produce of these farms, expences paid.

N° I. - - - £. 922 6 7

Ditto a gentleman, - 854 6 7

N° II. - - - 1083 2 5

Ditto a gentleman, - 1015 4 5

N° III. - - - 339 4 0

N° IV. - - - 640 4 8

Ditto a gentleman, 572 4 8

N° V. - - - 457 12 0

Ditto a gentleman, - 457 12 0

N° VI. - - - 608 1 8

Ditto a gentleman, - 530 1 8

N° VII. - - - 468 16 0

Ditto a gentleman, - 468 16 0

Profit

Profit per cent. on these farms.

N° I. - - - £. 14 8 0

Ditto a gentleman, 12 10 0

N° II. - - - 14 13 0

Ditto a gentleman, 12 18 0

N° III. - - - 9 0 0

N° IV. - - - 11 3 0

Ditto a gentleman, 9 0 0

N° V. - - - 11 10 0

Ditto a gentleman, 9 8 0

N° VI. - - - 8 16 0

Ditto a gentleman, 7 0 0

N° VII. - - - 9 18 0

Ditto a gentleman, 8 7 0

*Comparison between the gentleman and farmer
in their profits per cent. on these farms.*

N° I. The farmer, - £. 14 8 0

The gentleman, - 12 10 0

Former superior by - £. 1 18 0

N° II. The farmer, - 14 13 0

The gentleman, - 12 18 0

Former superior by - £. 1 15 0

N° IV. The farmer, - 11 3 0

The gentleman, - 9 0 0

Former superior by - £. 2 3 0

N° V. The farmer, - 11 10 0

The gentleman, - 9 8 0

Former superior by - £. 2 2 0

N° VI.

N° VI. The farmer, - - - £. 8 16 0

The gentleman, - - - 7 0 0

Former superior by - - - £. 1 16 0

N° VII. The farmer, - - - 9 18 0

The gentleman, - - - 8 7 0

Former superior by - - - £. 1 11 0

Progression of the farmer's farms in order of profit.

N° 2. - - - £. 14 13 0

1. - - - 14 8 0

5. - - - 11 10 0

4. - - - 11 3 0

7. - - - 9 18 0

3. - - - 9 0 0

6. - - - 8 16 0

Ditto of the gentleman's.

No 2. - - - £. 12 18 0

1. - - - 12 10 0

5. - - - 9 8 0

3. and 4. - - - 9 0 0

7. - - - 8 7 0

6. - - - 7 0 0

The most profitable farm to the common farmer, as well as the gentleman, is the sandy soil laid down to sainfoine, which pays a very considerable profit, sufficient, I should

should apprehend, to engage many to undertake the improvement of this kind of soil. The superiority of this management to keeping it in tillage contains a lesson of no slight importance to those who are so infatuated in favour of the plough, as to trust almost to that alone for the raising their fortunes. In this farm, the chances, incidents, contingencies of all kinds, are much more favourable than with a tillage farm. These sandy soils yield fine crops in wet years; but two or three dry ones are enough to break their occupiers, if not very rich. Now, with sainfoine, the case is very different; for that rooting remarkably deep, is scarcely affected by the weather, but gives as fine crops when common grasses are burnt up, as in the wettest of years; nor is there a soil in England so very sandy as not to be capable of producing this most beneficial crop.

The third, in the farmer's list, is the muir-farm, let after improvement. The superiority of the sandy commons to the muirs is owing to the expences of improvement running higher, and the latter being more profitable to let than to occupy, is
occasioned

occasioned by the supposition in the estimate, of such grass not being proper for fattening beasts; which is a circumstance more unfavourable to the tenant than the landlord. However, the improvement of the muirs is a most profitable business, and highly deserves the attention of such farmers as have it not in their power to command such soils as rank first in this catalogue.

The next in order, is the improved bog-farm let, which comes pretty much under the same predicament, in comparison with itself under different management, as the muir one.

It is observable, that both the muir and bog-farms are more profitable to relet than the dry, sandy, marled common; and this is owing to the former ones being laid to natural grass, which, though inferior, perhaps, to sainfoine, yet must be supposed to let much worse, and the sandy soil relet, was not in sainfoine, but in tillage; there would have been an impropriety in supposing the sainfoine let to its value; because, in some countries, the common farmers would not hire it at all.

The

The bog-land farm, improved and occupied, is the worst in the list, which should (in situations and circumstances as unfavourable as those which I have supposed) prevent any improving farmers from hiring such, when they can command other kinds of waste lands. But I should here remark, that the kind of bog I have calculated upon, is far worse and less profitable, than many uncultivated ones in this kingdom. Many marshes let after draining for 1*l.* 10*s.*; 2*l.*; 2*l.* 10*s.* and 3*l.* an acre, and fat the greatest oxen; and bogs are sometimes composed of such fine rich moulds, as to yield, when cultivated, the finest crops of cabbages, hops, rape &c. &c. &c.; but as these instances are not universally known, I forbear calculating upon them.

In the table of the gentleman's profit, the sandy improved common farm, laid to sainfoine, is most profitable, in which the gentleman nearly equals the farmer; for in such a farm the labour is trifling; and, consequently, the objections few. Such farms are excellently adapted to gentlemen, being liable to few objections and deductions that cannot be reduced to estimate.

estimate. The next in this list, as in the farmer's, is the muir-land relet, which is a point of very great consequence; for no waste lands in the kingdom are so extensive as these: none brings less benefit to their owners, nor possess, in many instances, greater advantages in the culture; but as I remarked in the other case, it would be unfair in me to calculate upon any thing beyond the average. If a man had the advantage of chusing, no uncultivated soil would prove more beneficial, if so much so; for many tracts of the muirs are as fine deep loams as any in England.

The sandy heath, let after improvement, and the muir occupied, yield the same profit; consequently, the former is to be preferred, as it is a certainty, and not dependent on the contingencies of a business. The bog-farm concludes, first relet, and, last of all, occupied.

Upon the whole, the breaking up and improving waste lands appears, in these calculations, to be a business of very great profit; and that, under circumstances very peculiar in themselves, and much more burthensome in the expences than vast tracts

tracts of land labour under, that might easily be procured.

First, In these farms, the soil is supposed to be perfectly wild and uncultivated, and in every respect in as waste a condition as can well be thought of.

Secondly, They are all supposed to be perfectly well inclosed, with the best fences the situation is capable of, and executed in as perfect a manner as if the work of the landlord himself for perpetuity, and not by a tenant for a term; the hedges well planted, and the ditches and drains deep, and effectually performed. The gates and irons, and the paling at each end, strong and expensively done, and painted.

Thirdly, The tenant is supposed to erect all the buildings at his sole expence, and that also in as complete and stable a manner, as if performed by the landlord himself. This expence is very weighty.

Fourthly, The improvement by burning, manuring, &c. &c. is as perfect as can be supposed; and all at the tenant's expence, and the prices charged very high.

Fifthly, A rent not inconsiderable is allowed for every farm; whereas vast tracts of land of these sorts are to be had in

many parts of the kingdom (such expensive improvements designed) for no rent at all, and probably the landlord at part of the expence of improvement.

Notwithstanding all these, and other unfavourable circumstances; yet the improvement of these wastes is an object of very considerable profit; some of them particularly advantageous, others less so; but *all* profitable, more or less. And in several instances, the profit running from 9 to 11 $\frac{1}{2}$ per cent. only from two or three years attention, (the farm being relet) and the undertaker left at total leisure and liberty to extend his attention to fresh attempts of the same, or any other sort: all which are points of very great consequence.

CHAP. II.

Of the most advantageous method of disposing of 15,000l. in the cultivation of waste lands.

THE farms of this chapter I suppose to be three times the extent of those in the last, viz. to the amount of three square miles; and I shall comprehend the same kinds of soil.

N^o 1.
*Nineteen hundred and twenty acres; of light
 sandy soil, old turf, improved by marle,
 chalk, or clay, and fenced with
 hedges and ditches.*

The following scheme (see Fig. III.) of
 the inclosure of this farm will shew the
 business of fencing in one view. The fields
 are not too large for dry soils.

F I G. III.

200 0 0	The highest quality of land	The highest quality of land
100 0 0	The highest quality of land	The highest quality of land
100 0 0	The highest quality of land	The highest quality of land

The four long lines of this oblong are
 each two miles long; and the four shorter
 ones, each one and a half; consequently,
 there are 14 miles in all, or 4480 perches

of fencing ; but I shall call it 4600, that a small close or two may be allowed for around the house.

Improvement.

4600 Perches of fencing, as *l. s. d.*
before, at 4 s. *920 0 0*

11 Gates, with posts, irons,
&c. and paling at each end,
at 1 l. 10 s. *18 18 0*

The farmhouse, *500 0 0*

The barns, *200 0 0*

The stable and cowhouse, *200 0 0*

The hogsties, fowlhouse, &c. *80 0 0*

Marling, chalking, or claying
1926 acres, at 4 l. *7680 0 0*

Ponds, *100 0 0*

Rent, at 1 s. *£. 96 0 0*

Tythe, rates, &c. at 8 s. *38 8 0*

134 8 0

£. 9830 18 0

5 l. 2 s. per acre.

Stock. l. s. d.

Rent, &c. *134 8 0*

Live stock.

50 Horses, *£. 750 0 0*

4000 Sheep, *2400 0 0*

Carry over, *£. 3150 0 0*

134 8 0

60 Cows,

(373)

Brought over,	£. 3150	00	134	8	0
60 Cows,	-	300	00		
10 Sows,	-	15	00		
				3465	000

Implements.

A broad-wheeled					
waggon,	£. 70	00			
Five narrow-wheeled					
ditto,	-	125	00		
Twenty carts,	-	200	00		
Harnes,	-	100	00		
Thirty ploughs,	-	47	50		
Harrows and rollers,	12	00			
Screens, bushels, &c.	50	00			
Dairy furniture,	-	50	00		
				654	50

Seed.

For 318 acres of					
wheat,	£. 159	00			
Ditto, 318 of turnips,	7	19	0		
Ditto, 954 of spring-					
corn,	-	477	00		
Ditto, clover, rye-					
grafs, &c.	-	238	10	0	
				882	90

Carry over, - £. 5136 12 0

Bb 3

Labour.

(374)

Brought over, £. 5136 2 0

Labour. - - -

One earth on 318

acres of wheat, £. 10 12 0

Sowing, - 3 19 6

Harrowing, - 1 19 9

Water-furrowing, 0 7 6

Reaping and har-vesting, at 6s. 95 8 0

Thrashing, 2½ qrs. 100 10 0

per acre, 795 qrs. 79 10 0

at 2s. - - -

Carrying out, 20 at a time, 39 journeys, 3 18 0

Three earths on 954

acres of spring-

corn, - - 95 8 0

Sowing, - 11 19 6

Harrowing, - 5 19 9

Rolling, - 1 4 0

Mowing and har-

vesting, at 4s. 190 16 0

Thrashing, 4 qrs. per

acre, 3816 qrs. 190 16 0

at 1s. - - -

Carry over, £. 691 18 4

Carrying

(375)

Brought over, £.	691	18	4	5136	2	0
Carrying out 3366						
qrs. of barley, 30						
at a time, 112						
journeys, - -	11	4	0			
Sowing clover, &c.	11	19	6			
Water-furrowing,	1	2	6			
Four earths on 318						
acres of turnip-						
land, - 2 -	42	8	0			
Sowing, -	3	19	6			
Harrowing, -	1	19	9			
Water-furrowing,	0	7	6			
Hand-hoeing twice,						
at 7s. -	111	6	0			
Two earths on 318						
acres of fallow, 21	4	0				
Digging and cart-						
ing 1500 loads of						
marle, &c. into						
the farm-yard, 20						
carts, 200 loads						
per day, 7 days,						
at 2l. 14s. 2d.	18	19	2			
Mixing 1320 loads						
of dung with 1500						
of marle, &c. in						
all 1820, at 1d.	7	11	8			
Carry over, £.	923	19	11	5136	2	0
Bb 4						
Carting						

Brought over, £ 933 19 11 5136 2 0
Carting and spreading 1820 loads,
200 loads per day, 9 days, at
2 l. 2 s. 6 d. - 19 2 6
Chopping and raking 318 acres of
stubble, - 23 12 8
Carting home, - 5 0 0
Sundry small articles
respecting cattle;
a man a year, - 24 0 0
Sundry small un-
specified articles, 19 0 0

1005 14 5

Sundry articles.

Shoeing, - £. 30 0 0
Wear and tear, - 180 0 0
450 Qrs. of oats,
at 13 s. - 292 10 0
Hay, - 300 0 0
Market expences, 4 0 0
Straw cut into chaff, 25 0 0
Straw, - 30 0 0

Carry over, £. 881 10 0 6141 16 5

Cash

Carting

(377)

Brought over,	£. 881	10	0	6141	16	5
Cash in hand,	-	300	0	0		
				<u>1181</u>	<u>10</u>	<u>0</u>
				7323	6	5
Improvement,	-			9830	18	0
Total stock necessary,	£.	17154	4	5		

The cattle, I suppose not to be purchased until towards the end of the year. The farm, like that in the preceding chapter, is thrown into an excellent course; first, one in turnips; one in spring-corn; one wheat; and three grass; consequently, there are only two crops of corn in six years. Thus the heart of the soil is never exhausted, nor the fertility of the manure ploughed out almost as soon as it is laid on the ground, which is the case with many marled farms in common husbandry.

ANNUAL ACCOUNT.

Expences,	l.	s.	d.
Rent, &c.	134	8	0
Seed for 318 acres of wheat,			
318 of spring-corn, 318 of			
turnips, and 318 of grass,	389	11	0
Carry over,	£. 523	19	0

Labour,

(378)

Brought over, £. 523 19 0

Labour.

On 318 acres of
wheat, as before, £. 195 14 9

One cart on 318
acres of spring-

corn,

Sowing, - - - 3 19 6

Harrowing, - - - 19 9 9

Rolling, - - - 0 7 6

Mowing and har-

vesting, at 4 s. 63 12 0

Thrashing, 4 qrs. per

acre, 12 7 2 qrs. at 1 s. 63 12 0

Carrying out 8 s. 2

qrs. 30 at a time,

27 journeys, - - - 2 14 0

Sowing clover, - - - 3 19 6

Water-furrowing, - - - 0 7 6

Labour on 318 acres

of turnips, as be-

fore, - - - 160 0 9

Digging and carting

and mixing ma-

nure, as before, 45 13 4

Ditto on stubble, as

before, - - - 28 12 0

Carry over, £. 581 4 7

523 19 0

Mowing

Brought over, £. 581	4	7	523	19	0
Mowing, making, and cocking 200 acres of clover, -	£. 30	0	0	0	0
Carting, stacking, and thatching, -	28	0	0	0	0
Cutting chaff, -	9	0	0	0	0
Sundry works respect- ing cattle, a man, 24	0	0	0	0	0
Sundry small unспе- cified articles, -	10	0	0	0	0
			702	4	7

Sundry articles.

Shoeing and wear and tear, -	£. 210	0	0	0	0
Market expences, -	4	0	0	0	0
			214	0	0
			£. 1440	3	7

Produce.

795 Qrs. of wheat, at 2 l.	1590	0	0	0	0
822 Qrs. of barley, at 16 s.	657	12	0	0	0
60 Cows, -	300	0	0	0	0
Profit on 4000 sheep, -	2000	0	0	0	0
	4547	12	0	0	0
Expences, -	1440	3	7	0	0
	3107	8	5	0	0
Interest, -	857	14	0	0	0
Profit, -	£. 2249	14	5	0	0

The

The capital pays 18 *l.* 2 *s.* per cent. which profit is very great, to succeed such vast expences at setting out: 18 per cent. on a capital employed in a farm, which may almost be called a man's own creation; and, consequently, every circumstance of contiguity, good fences, convenient buildings, &c. &c. &c. in great perfection, is, beyond all doubt, a noble profit, and an ample encouragement to cultivators to undertake the improvement of such vast wastes. The gentleman's account is as follows:

<i>Improvement.</i>		
The former total,	-	9830 18 0
27 per cent. on 3800 <i>l.</i> labour,	1026 0 0	
		<i>£.</i> 10856 18 0
<i>Stock.</i>		
The former total,	7323 6 5	
27 per cent. on 1005 <i>l.</i> labour,	271 7 0	
		7594 13 3
Improvement,	-	10856 18 0
Total necessary to stock,	<i>£.</i>	18450 11 3

ANNUAL ACCOUNT.

<i>Expences.</i>		
The former total,	-	1440 3 7
27 per cent. on 702 <i>l.</i>	-	189 10 0
		<i>£.</i> 1629 13 7
8		<i>Produce.</i>

{ 381 }

<i>Product.</i>	
The same as before,	4547 18 0
Expences,	169 13 7
	2917 18 5
Interest,	922 11 0
Profit,	£ 1995 7 5

The capital pays 15-l-10-s per cent

N^o 2.

The same farm, under sainfoine.

The improvement the same as before,	
	£ 9830 18 0

Stock.

Rent, &c.	134 8 0
-----------	---------

Live stock.

50 Horses,	£ 750 0 0
900 Cows,	2700 0 0
50 Sows,	70 0 0
	3520 0 0

Implements.

The same as before,	854 5 0
---------------------	---------

Seed.

For 1650 acres of	
barley and oats,	£ 825 0 0
Ditto sainfoine,	825 0 0
grs. at 1 l.	825 0 0
Carry over,	£ 1650 0 0
	4308 13 0
	Seed

Brought over, £.	1650	0	0	4308	13	0
Seed for 270-acres						
of turnips, at 6s.	6	15	0			
				<u>1656</u>	15	0

Labour. - - - - -

Five earths on 1650 - - - - -

acres spring-corn-
land, - - - £. 275 0 0

Sowing, - - - 20 12 6

Ditto the sainfoine, 41 5 0

Harrowing, - - - 20 12 6

Rolling, - - - 1 10 0

Mowing and har-

vesting, at 4s. 330 0 0

Thrashing, 4 qrs. per

acre, 6600 qrs. at 1s. 330 0 0

Carrying out 6150

qrs. of barley, 30

at a time, 205

journeys, - - - 20 10 0

Four earths on 270

acres of turnip-land, 36 0 0

Sowing, - - - 3 7 6

Harrowing, - - - 1 2 6

Hand-hoeing, at 7s. 94 10 0

Carry over, £. 1174 10 0 5965 8 0

Drawing

(383)

Brought over, £.	1174	10	0	5965	8	0
Drawing the turnips and carting them home, at 7 s. 6 d.	101	5	0			
Digging and carting 3000 loads of marle, &c. into the farm- yard, 30 per day, 100 days, at 8 s. 9 d.	43	15	0			
Mixing 3000 loads of marle, &c. with 4000 of dung, 7000, at 1 d.	29	3	4			
Carting and spread- ing 7000 loads, at 30 per day, 233 days, at 7 s.*	81	11	0			
Sundry articles con- cerning cattle, a man, -	24	0	0			
Sundry small articles unspecified, -	20	0	0			
				1474	4	4

Sundry articles.

The same as before, -	1181	10	0
	8621	2	4
Improvement, -	9830	18	0
Carry over, £.	18452	0	4

* These are calculated at three carts, but more may be used if time be wanting, as the stock will consist of more.

Deduct

(384)

Brought over, £ 1845 0 4
Deduct the product, by sale of
40 horses, 15 carts, harness, 20
ploughs, &c.; they cost 860 £. 500 0 0
Total necessary to stock this
farm, - - - £ 1895 1 0 4

ANNUAL ACCOUNT.

Expences. £. s. d.

Rent, - - - 134 8 0

Seed for 270 acres of turnips, 6 13 0

Labour.

On 270 acres of tur-
nip land, as before, 236 5 0

Carting and mixing
manure, ditto, 154 9 4

Mowing, making,
carting, and stack-
ing 700 acres of
sainfoine, - 233 0 0

Sundry articles con-
cerning cattle, and
small unspecified
ones, - - - 40 0 0
663 14 4

Sundry articles.

Straw cut into chaff, £. 20 0 0

Shoeing, - - - 6 0 0

Carry over, £. 26 0 0 840 17 4

Wear

(383)

Brought over,	£. 26	0	0	804	17	4
Wear and tear,	-	50	0	0		
Market expences,	-	3	0	0		
Straw,	-	200	0	0		
				279	0	0

£. 1083 17 4

Produce, l. s. d.

900 Cows,	-	4500	0	0		
Expences,	-	1083	17	4		
		3416	12	8		
Interest,	-	897	12	0		
Profit,	-	£. 2518	10	8		

The capital pays 19 l. per cent.

The gentleman's account is as follows:

Improvement, as before, - £. 10856 18 0

Stock, ditto, - 7594 13 5

18451 11 5

Product by sale, - 500 0 0

Total necessary, - £. 17951 11 5

ANNUAL ACCOUNT.

Expences, l. s. d.

The former total, - - 1083 17 4

27 per cent. on 663 l. labour, 179 0 0

£. 1262 17 4

Produce.

	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	- - -	4500	0	0
Expences,	- - -	1262	17	4
		3237	2	8
Interest,	- - -	897	11	0
Profit,	- - -	£. 2339	11	8

The capital pays 18 l. per cent.

N^o 3.

Variation the second.

The same farm let after improvement.

All these articles of inclosing, building, manuring, &c. are the same as in the preceding accounts.

Improvement, - - - £. 9830 18 0

In this method the above sum is all the stock in trade: I suppose the farm then let at 10 s. per acre.

ANNUAL ACCOUNT.

	<i>Expences.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	134	8	0
	<i>Produce.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent of 1920 acres, at 10 s.		960	0	0
Expences, - - -		134	8	0
		825	12	0
Interest, - - -		491	13	0
Profit, - - -		£. 333	19	0

The capital pays 8 l. 7 s. per cent.

The

The gentleman's account is as follows:

Improvement, - - - £. 10856 18 0

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent, &c.	- - -	134	8	0
<i>Produce.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
The same,	- - -	960	0	0
Expences,	- - -	134	8	0
		825	12	0
Interest,	- - -	542	16	0
Profit,	- - -	£. 282	16	0

The capital pays 7 l. 12 s. per cent.

N^o 4.

Variation the third.

Nineteen hundred and twenty acres of muir-land, improved with paring and burnings and lime, and fenced with walls.

The state of this tract of muir-land I suppose to be the same as that in the preceding chapter.

<i>Improvement.</i>		
4600 Perches of walling, at -	4 s. 8 d.	1073 6 8
11 Gates, with posts, irons, pales, painting, &c. at 1 l.	-	11 0 0
Carry over,		£. 1084 6 8

Brought over,	£. 1084	6	8
The farmhouse complete,	250	0	0
The bar,	30	0	0
The stable,	80	0	0
The cowhouse,	250	0	0
The hogstie, fowlhouse, &c.	80	0	0
Paring and burning 1920 acres,			
at 1 l.	1920	0	0
Liming, at 1 l. 10 s.	2880	0	0
Rent, at 6 d.	£. 48	0	0
Tythe, rates, &c.	19	4	0
		67	4
Incidents, at 5 s.	480	0	0
	£. 7121	10	8
3 l. 14 s. per acre.			
<i>Stocks</i>			
Rent, &c.	67	4	0
<i>Live stock.</i>			
50 Horses,	750	0	0
<i>Implements.</i>			
5 Narrow-wheeled			
waggons,	£. 125	0	0
6 Carts,	60	0	0
Harness,	100	0	0
30 Ploughs,	47	5	0
Harrows and rollers,	10	0	0
Carry over,	£. 342	5	0
	817	4	0
Screens,			

(389)

Brought over, £. 342 5 0 817 4 0
Screens, forks, lines,
shovels, &c. &c. 50 0 0
Dairy furniture, 100 0 0

492 5 0

Seed.

For 1920 acres of turnips, - 48 0 0

Labour.

Three earthson 1920
acres of turnip-

land, - - 192 0 0

Harrowing, - 24 0 0

Sowing, - 24 0 0

Hand-hoeing, at 10s. 960 0 0

Sundry small articles, 50 0 0

1250 0 0

Sundry articles.

Shoeing, - £. 30 0 0

Wear and tear, 100 0 0

450 Qrs. of oats, 292 10 0

Hay, - - 300 0 0

Market expences, 1 10 0

Straw cut into chaff, 45 0 0

Cash in hand, - 300 0 0

1069 0 0

£. 3676 9 0

Cc 3

Produce.

(390)

Produce.

1920 Acres of turnips, sold to *l. s. d.*
be fed off with sheep, at 2 *l.* 3840 0 0

Second year.

Expences. l. s. d.

Rent, &c. - - - 67 4 0

Seed.

For 1920 acres of
barley and oats, *£.* 960 0 0
Ditto grafs-seeds, 1920 0 0
----- 2880 0 0

Labour.

Three earths on
1920 acres, *£.* 192 0 0
Sowing, - 24 0 0
Harrowing, - 24 0 0
Rolling, - 10 0 0
Sowing grafs-seeds, 96 0 0
Mowing and har-
vesting, at 4 *s.* 384 0 0
Thrashing, 4 qrs. per
acre, 7680 qrs. at
1 *s.* - - 384 0 0
Carrying out 7230
qrs. 50 at a time,
144 journeys, 10
men, - 72 0 0
Carry over, *£.* 1186 0 0 2947 4 0
Sundry

Brought over, £. 1186 0 0 2947 14 0

Sundry small articles, 50 0 0 808 10 0

— 1236 10 0

Sundry articles.

Shoeing, and wear

and tear, - £. 130 0 0

Hay, - - 300 0 0

Market expences, - 4 0 0

— 434 0 0

£. 4617 14 0

Produce. l. s. d.

7230 Qrs. of barley, at 14 s. 5061 0 0

Third year.

Expences. l. s. d.

Rent, - - - 67 4 0

600 Cows, - - - 3000 0 0

50 Sows, - - - 70 0 0

Labour.

Mowing and making

1920 acres of hay,

at 5 s. - £. 480 0 0

Carting and stack-

ing, at 3 s. - 288 0 0

Thatching, - - 15 0 0

Carry over, £. 783 0 0 3137 4 0

C c 4 Carting

Brought over, £.	482	0	0
Carting 3000 loads of black mury earth, or peat, or pared surface, into farm-yard, 60 per day, 50 days, at 18 l. 9 s. 3 d. per load, and 3 dri- vers, at 1 l. 3 d.	46	17	6
Mixing 4000 loads of dung with 3000 of earth; in all 7000, at 1 d.	99	3	4
Carting and spread- ing 7000 loads, 60 per day, at 12 s. 9 d.	116	days,	73 19 0
Cutting chaff, -	9	0	0
Sundry articles con- cerning cattle; a man, -	24	0	0
Small unspecified ones, -	20	0	0
			985 19 10
Carry over, £.	4123	3	10
Sundry			

Brought over, £. 4123 3 10

Sundry articles.

Liming at 11. 10s. 2880 0 0

Oats, - - 292 10 0

Shoeing, and wear

and tear, - 100 0 0

Market expences, 2 10 0

3275 9 0

£. 7398 3 10

Produce. l. s. d.

1200 Tons of hay, - 3000 0 0

Product by sale of 40 horses,

harness, ploughs, &c.; they

cost 750 l. - 550 0 0

£. 3550 0 0

RECAPITULATION. l. s. d.

Improvement, - 7121 10 8

Stock and first year, - 3676 9 0

Interest, - 539 17 0

Produce of the first year below

the expences of the second, 777 4 0

Interest, - 578 14 0

Produce of the second year be-

low the expences of the

third, - 2337 3 10

Interest, - 695 11 0

Total necessary to stock, £. 15726 9 6

ANNUAL

ANNUAL ACCOUNT

Expences, *s. d.*

Rent, - - - 67 4 0

Labour, - - - 0 0 0

Mowing and making 900 acres of hay, - - - 225 0 0

at 5 s. - - - 225 0 0

Carting and stacking,

at 3 s. - - - 135 0 0

Thatching, - - - 9 0 0

Carting, mixing,

recarting, and

spreading 6000

loads of virgin-

mould, and 6000

of dung, as in

N^o 4. of the pre-

ceding chapter,

three times as

much, - - - 287 12 0

Cutting chaff, - - - 1 5 0

Carting 150 waggon-

loads of ling, or

other young spon-

taneous growth, to

farm-yard, at 5 s. 37 10 0

Carry over, 695 7 0

Sundry

Brought over, £. 695	7	0	67	4	0
Sundry articles con- cerning cattle; a man, -	24	0	0		
Small unspecified ones, -	20	0	0		
			739	7	0

Sundry articles.

Shoeing, -	£. 6	0	0		
Wear and tear, -	50	0	0		
Market expences, -	3	0	0		
Straw, -	80	0	0		
Oats, 90 qrs. -	58	10	0		
			197	10	0
			£. 1005	1	0

Produce. l. s. d.

600 Cows, -	3000	0	0		
Expences, -	1005	1	0		
	1994	19	0		
Interest, -	786	6	0		
Profit, -	£. 1208	13	0		

The capital pays 12 l. 13 s. per cent.

This profit is very considerable, and yet the produce is supposed very low, and the expences of all kinds extremely high. No man that undertakes a square league of this land will find, if he works with judgment, his

profit so small as 12*l.* 13*s.* per cent. The gentleman's account is as follows:

Improvement. *l. s. d.*

As before, - - - 7121 10 8

27 per cent. on 3400 *l.* labour, 918 0 0

£. 8039 10 8

Stock. *l. s. d.*

As before, - - - 3676 9 10

27 per cent. on 1250 *l.* - 337 10 0

£. 4013 19 0

Produce. *l. s. d.*

1920 Acres of turnips, - 3840 0 0

Second year.

Expences. *l. s. d.*

The former total, - - - 4617 4 0

27 per cent. on 1236 *l.* labour, 343 14 0

£. 4960 18 10

Produce. *l. s. d.*

7230 Qrs. of barley, - - - 5061 10 0

Third year.

Expences. *l. s. d.*

The former total, - - - 7398 3 10

27 per cent. on 985 *l.* 19*s.* 10*d.* 266 4 0

£. 7664 7 10

Produce. *l. s. d.*

As before, - - - 3550 0 0

RECAPIT-

RECAPITULATION.

Improvement, - - - - -	8039	10	8
Stock, and first year, - - - - -	4013	19	0
Interest, - - - - -	604	18	0
Produce of the first year below the expences of the second, - - - - -	1120	18	0
Interest, - - - - -	658	13	0
Produce of the second year be- low the expences of the third, - - - - -	2603	7	10
Interest, - - - - -	788	13	0
Total necessary to stock, £.	17827	14	6

ANNUAL ACCOUNT.

Expences.	l.	s.	d.
The former total, - - - - -	1005	1	0
27 per cent. on 739 l. 7 s.			
labour, - - - - -	199	10	0
	£. 1204	11	0

Produce.	l.	s.	d.
600 Cows, - - - - -	3000	0	0
Expences, - - - - -	1024	11	0
	1791	9	0
Interest, - - - - -	891	7	0
Profit, - - - - -	£. 904	2	0

The capital pays 10 l. 1 s. per cent.

This is a most noble encouragement to gentlemen that have formed any ideas of cultivating

cultivating such soils; for 15 per cent. profit on a farm, after the expenditure of above 7000 l. in preparing the land for occupation, is very great, and such as should satisfy the most ambitious. All the deductions on account of labour being made, and the farm left in grass, the gentleman may reasonably be supposed to possess an advantage equal to this, as the nature of grass-farms is so favourable to him.

I need not hint, that the profit would be much larger if the landlord was induced to erect the buildings, or the walls, in consideration of the greatness of the other expences; and it can scarcely be thought that any but very poor, or very ignorant ones, would forego the benefits of such noble improvements to themselves and their posterity, rather than part with an inconsiderable sum of money. In a word, there is scarce a calculation in these sheets, but what might be exceeded in reality; which moderation was requisite to prevent the objections of backward slothful people who, wanting the spirit to form improvements themselves, endeavour dreamingly

to

to ridicule others whose views are more enlarged.

No 5.

Variation the fourth.

The same farm let after improvement.

The expence of improving, *l. s. d.*

the same as before, 7121 10 8

Stock and first year ditto, 3676 9 0

Interest, 539 17 0

Produce of first year below the

expence of the second, 777 4 0

Interest, 578 14 0

£. 12693 14 8

From this we must deduct the

sale of the stock: it cost,

Horses, £. 750 0 0

Implements, 492 0 0

£. 1242 0 0

Total necessary to stock, £. 11793 14 8

ANNUAL ACCOUNT.

Expences. *l. s. d.*

Rent, 48 0 0

Produce.

Rent of 1020 acres of grass- *l. s. d.*

land, at 15 s. 1440 0 0

Expences, 48 0 0

1392 0 0

Interest, 589 13 0

Profit, £. 802 7 0

The

(200)

The capital pays 11 l. 10 s. per cent.

The gentleman's account is as follows :

Improvement,	-	-	£. 8039	10	8
Stock and first year,	-	-	4013	19	0
Interest,	-	-	602	13	0
Produce of the first year below	-	-			
the expence of the second,	-	-	1120	18	0
Interest,	-	-	658	13	0
			<u>14435</u>	<u>13</u>	<u>8</u>
Deduct by sale, as before,	-	-	900	0	0
Total necessary to stock,	£.		<u>13535</u>	<u>13</u>	<u>8</u>

ANNUAL ACCOUNT.

<i>Expences.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent,	-	48	0	0
<i>Produce.</i>				
Rent, at 15 s.	-	1440	0	0
Expences,	-	48	0	0
		<u>1392</u>	<u>0</u>	<u>0</u>
Interest,	-	676	15	0
Profit,	-	£. 715	5	0

The capital pays 10 l. 5 s. per cent.
 which is a profit highly considerable to
 reap from soils that abound in such vast
 plenty in this kingdom, and which may
 be procured, in almost any quantities, on
 much more advantageous terms than I
 have supposed.

I here omit the improvement of the bog land, because the extent of the last chapter, viz. 640 acres, is as great as to be found in one piece, some few instances perhaps excepted; and in case of larger undertakings, it will be no difficult matter in any one to form an estimate adapted to the circumstances in question. The calculations inserted in the preceding chapter may be of use to any one in such a case.

RECAPITULATION OF THIS CHAPTER.

Sum requisite to stock the preceding Farms.

○ N ^o I. 1920 Acres of light sandy soil; improved by marle, chalk, or clay, and fenced with hedges and ditches,	-	17154	4	5
○ Ditto a gentleman,	-	18451	11	5
○ N ^o II. The same farm under sainfoine,	-	17952	0	4
○ Ditto a gentleman,	-	17951	11	5
○ N ^o III. The same farm let after improvement,	-	9830	18	0
○ Ditto a gentleman,	-	10856	18	6
○ N ^o IV. 1920 Acres of murland, improved with paring, burning and lime, and fenced with walls,	-	15726	9	6
○ Ditto a gentleman,	-	17827	14	6

N ^o V.	The same farm let	
	after improvement,	11793 14 8
	Ditto a gentleman,	13535 13 8
	Annual produce of these farms, expences paid.	
N ^o I.		13107 8 3
	Ditto a gentleman,	29179 8 5
N ^o II.		3416 8
	Ditto a gentleman,	3257 8
N ^o III.		825 12 0
	Ditto a gentleman,	825 12 0
N ^o IV.		1994 19 8
	Ditto a gentleman,	1795 9 0
N ^o V.		1692 10 0
	Ditto a gentleman,	1369 10 0
	Profit per cent. on these farms.	
N ^o I.		1712 18 2 0
	Ditto a gentleman,	1516 0 0
N ^o II.		101 0 0
	Ditto a gentleman,	181 0 0
N ^o III.		81 0 0
	Ditto a gentleman,	712 0 0
N ^o IV.		1213 0 0
	Ditto a gentleman,	101 0 0
N ^o V.		1116 0 0
	Ditto a gentleman,	101 0 0
	Comparison	
N. V.		

*Comparison between the gentleman and farmer
in their profits per cent. on these farms.*

N^o I. The farmer, - - - £. 18 2 0

The gentleman, - - - 15 16 0

Former superior by - - - £. 2 6 0

N^o II. The farmer, - - - 19 0 0

The gentleman, - - - 18 0 0

Former superior by - - - 1 0 0

N^o III. The farmer, - - - 18 7 6

The gentleman, - - - 17 12 0

Former superior by - - - 8 15 6

N^o IV. The farmer, - - - 12 13 0

The gentleman, - - - 10 1 0

Former superior by - - - £. 2 12 0

N^o V. The farmer, - - - 11 16 0

The gentleman, - - - 10 5 0

Former superior by - - - 0 11 0

Progression of the farmer's farms in order

of profits.

N^o 1. £. 19 0 0

2. 18 2 0

3. 12 13 0

4. 11 16 0

5. 10 1 0

6. 8 1 0

7. 7 12 0

8. 6 11 0

9. 5 10 0

10. 4 9 0

11. 3 8 0

12. 2 7 0

13. 1 6 0

14. 0 5 0

15. 0 4 0

16. 0 3 0

*Progression of the gentleman's farms in order
of profit.*

o 2 N ^o 2.	- - -	£. 18	0 8	1 7
o 3 1.	- - -	15	16	0
o 4 5.	- - -	10	5	0
o 5 4.	- - -	10	0	11
o 6 3.	- - -	7	12	0

Upon these tables it is, in general, to be remarked, that the sandy soil under sainfoine is most profitable both to the gentleman and farmer; and not to be wondered at; for such a farm can, in no situation, fail of being highly advantageous. The gentleman's profit is not very far short of the farmer's; nor has he, in such an one, the evils to labour under which he must ever suffer in a tillage one. It is of very great importance to every one who cultivates these soils, to know, that the superior management of them is the husbandry of sainfoine; indeed, the visible superiority in the calculation is only 1 l. 2 s. per cent.; but it will easily be believed, that, in a longer course of years, the difference will be much greater; for the certainty of the profit by sainfoine is undoubtedly much greater in these soils, than that by corn, which, in
dry

dry years, is reduced to a trifle. The expences are also much lower, a circumstance of particular consequence to a gentleman. It is true, the general profit from this culture would be higher, had the whole farm been supposed under grass; a part of it being occupied by turnips for feeding the cows (when dry), renders the business somewhat more complex, and much increases the expence of labour; but this supposition was necessary for very material reasons. Sainfoine is not a perpetual pasture, but wants renewing, as generally reported, in twenty years, and sometimes in twelve or fifteen. Now, by the culture of one part of the farm in turnips, there is always a most excellent preparation carrying on for the renewal of the sainfoine. The succession of turnips several years on the same land without any corn, and with a very plentiful annual manuring, must inevitably render the soil extremely fertile, and in admirable order for the grass; and by this means, no part of the farm will ever be under an indifferent or middling crop, as it will regularly be renewed before it declines; and another point of

importance, is the disposition of the manure; sainfoine affects not dung, but it is applied to excellent use in the turnip-crop. These circumstances render this farm much more advantageous than I have supposed.

The farm on the same soil, but kept in the arable culture, is the next in profit to both gentleman and farmer; it is upon this to be remarked, that the former must not expect to find a proportional profit in this to others wherein are less tillage; for such farms, I have often remarked, are very unprofitable to gentlemen in the amount of labour, and the complex nature of the business.

The muir-farm laid to grass, and occupied, is the third in the farmer's list; but relet after improvement, holds the same rank in the gentleman's, who makes within 2 *per cent.* as much by letting it, as the other by farming it; which, to all improvers of waste land, is a very capital point; for an improvement that is effected in two or three years, leaves the undertaker at full liberty for fresh business, and, at the same time, yields so good a profit as 10 *per cent.* is, beyond doubt, an object of
vast

vast importance. Here are no hazards, no chances annexed to business, no confinement; but, on the contrary, a profit as sure as the rental of any other landed estate. In a word, it is a most beneficial employment of a gentleman's money, and equally advantageous to private and public interests.

The next class in this table, is the muir-farm, occupied with gentlemen, and let with the farmers; and the last with both, the sandy farm, let after improvement, which yields a profit but inconsiderable compared with the rest.

Upon the whole, there appears great reason, from these calculations, to assert the general profit of improving waste lands, which, in numbers of these instances, is a business more advantageous than any man can apply to. There are very few situations in commerce, manufactures, the professions, or indeed any other path of making a fortune, so truly advantageous as agriculture, when entered into with judgment, and conducted with spirit.

I forbear the further extension of these chapters, as the bulk to which these sheets

are arrived will not allow of more additions, without swelling the size too much : and as I have carried the amount of stock to near 20,000 *l*. I should remark, that the extending it to a much larger sum, is not a very complex work for any of my readers to perform, according to the particular circumstances of their cases, which, respecting larger sums, must be very rare. But I should observe, that the profit will be found to increase beyond the proportion of the increase of land ; which effect is caused by the extent of fencing, the buildings, and some other circumstances.

CHAP. III.

Of hiring and stocking a farm of nineteen hundred and twenty acres of the better sort of uncultivated land.

IN the preceding chapters I have confined myself, as nearly as I was able, to the average of circumstances, and not supposed the soil in question, in any of them, better than the medium of the sorts. And this I did, that a want of land might not be objected to me in any case : But, for curiosity,

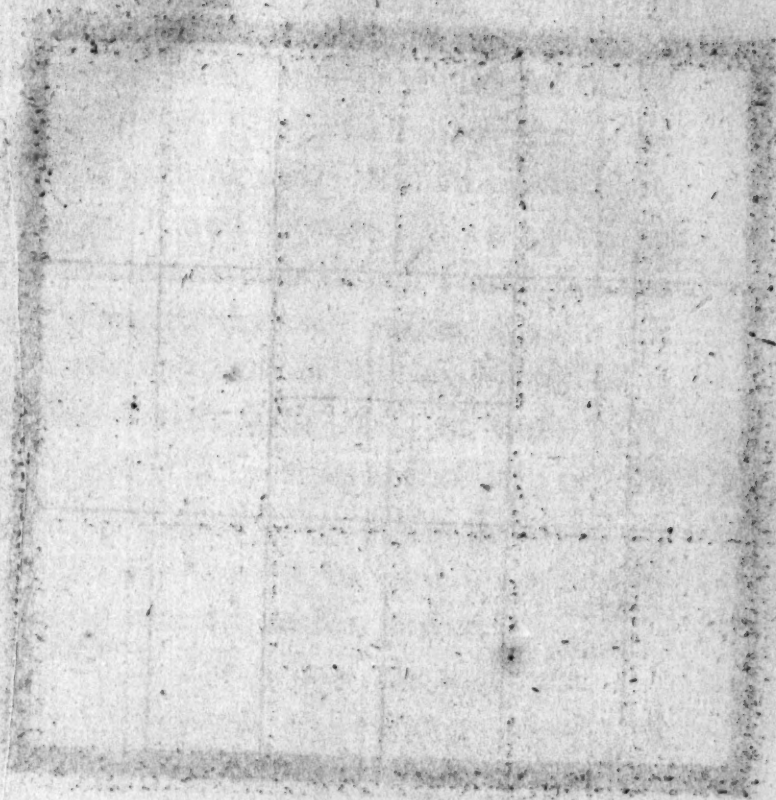
sity, I shall here address myself not to the world at large, but to some man of peculiar sense and spirit, that has money at command, and is desirous of employing it to the best purpose on a farm in an uncultivated soil. I suppose him to do as every one would in a similar case, that is, examine many wastes, and fix where he could procure the best soil on the most reasonable terms.

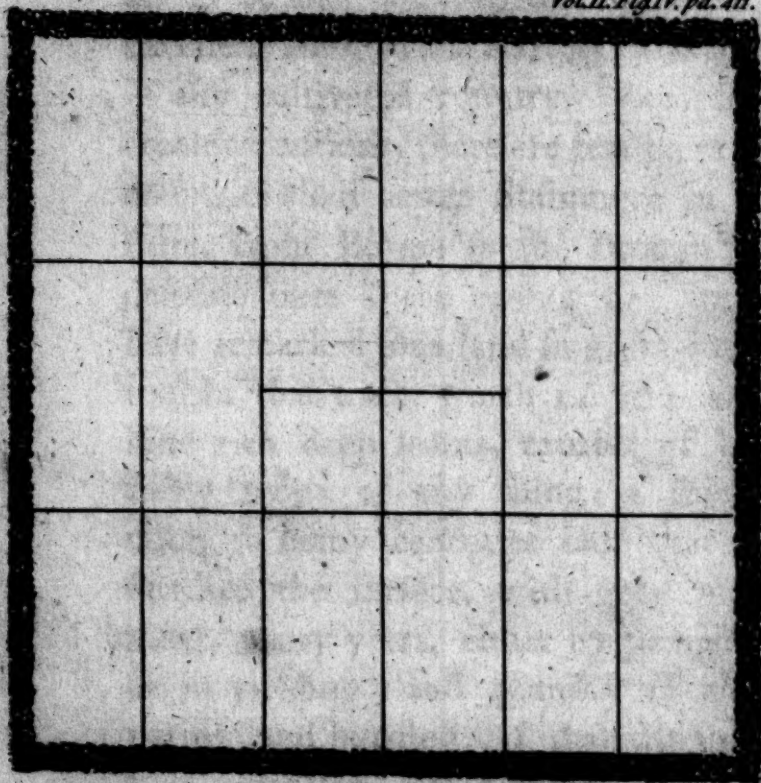
There are many royal forests and chases that contain vast tracts of rich clay soils, also many commons of the same; but none of these must be supposed in culture, as none of them can be procured.

Heaths, downs, sheep-walks, warrens, &c. are generally of a sandy nature and poor: there are exceptions, but not numerous enough for my purpose; for although I am stating but a single case, yet there must be observed a probability, or it will be useless.

If I was to fix on any tracts of waste lands to be examined with such a view, I should name the muirs in Yorkshire, Durham, or Northumberland. Great tracts of them contain very bad soils; but many

are to be met with abounding with most excellent land, that is scarcely to be equalled in any cultivated country. According to common notions, there are few more barren countries than across Stainmore in Yorkshire, from Bowas to the Brough: more desolate ones there cannot be; and yet I have remarked soils (and in great quantities too) in that tract, worth 1*l.* 10*s.* an acre. Fine rich deep loams, capable of bearing noble crops of any thing; a thick turf upon it many centuries old, that would fertilize the surface, with good management, many years, either by ploughing it, or in yielding a vast quantity of ashes in paring and burning. I shall further suppose a gentleman to hire this farm, and to apply it not only to common purposes, but to such improvements as its nature seems most capable of. The size of the farm does not require the being confined to one crop out of the common road; but admits of a variety, without its degenerating into a trifling husbandry: Nor should I omit remarking, that the most convenient and beneficial contiguity of such new farms, inclosed at once, render them, in most respects





respects of management, much less than at first they appear to be: 1920 acres lying around the house, must be considered rather as a small than a large farm, and the direction of it nothing more than an amusement. However, I shall suppose a working bailey kept, to obviate objections. I must beforehand remark, that the reader should not object the largeness of the crops; if he is acquainted with such tracts of waste land, he must guess at their great fertility: besides the natural goodness of the soil, I shall suppose my cultivator to omit no means of manuring that are in his power.

Fig. IV. is a sketch of the inclosure.

It is divided into 20 divisions; 16 of 106 acres each, and 4 of 53 each.

There are 6357 perches of fencing. I shall reckon the whole as walled, to prevent objections, the price being 8 *d.* *per* perch more than for hedging and ditching; but I do not, therefore, lay it down as a position, that it should be walled; on the contrary, I should prefer hedges and ditches for all, except the outward fences.

I have supposed a plantation to be run around the whole farm. Many situations
upon

upon the muirs, where excellent land is found, are very black: to add, therefore, to the agreeableness of the situation (and not a little, by warmth, to the goodness of the crops) I have supposed this improvement; and the only allowance I make for it is, to suppose the land planted rent-free, which is not a great matter, all things considered. Happy the landlord who gains such tenants as I suppose for his waste lands.

Expences.

Improvement.

6357 Perches of walling, at	l.	s.	d.
4s. 8d.	-	-	-
	1484	6	0
30 Gates, irons, posts, paling,			
and painting, at 1 l. 10 s. *	45	0	0
The farmhouse complete, †	500	0	0
The barns,	150	0	0
The stable,	100	0	0
The cowhouse,	150	0	0
Carry over, -	£. 2429	6	0

* Throughout this calculation I have a gentleman's residence in my eye, and allow something for pleasure and convenience as well as profit; I therefore suppose the gates 10 s. each better than before.

† And for the same reason allow so much for the farmhouse. I suppose all the buildings of stone; 500 l. with such materials, will raise an excellent house.

(413)

Brought over,	£. 2429	6	0
The oxhouse,	-	100	0
The hogsties,	-	50	0
The fowlhouse, &c.	-	10	0
Paring and burning 1920 acres,	1920	0	0
Liming, at 1 l. 10 s.	-	2880	0
Planting the surrounding screen,	100	0	0
Incidents,	-	480	0
Rent, at 1 s. *	£. 96	0	0
Tythe, &c. at 8 s.	38	8	0
		134	8
		8163	14
27 per cent. on labour,	-	1086	9
		£. 9190	3
4 l. 15 s. per acre.			
Stock.			
Rent,	-	134	8
Livestock.	-		
50 Horses,	-	750	0
Implements.			
A broad-wheeled			
waggon, -	£. 70	0	0
5 Narrow-wheeled			
ditto, -	125	0	0
Carry over,	£. 195	0	0
		10074	11

* It would be absurd to suppose such an undertaker not to get land at the rate it is already let; but much is let for nothing.

Twenty

(414)

Brought over, £. 195 0 0 10074 11 0
Twenty carts, - 200 0 0
Harness, - 100 0 0
Thirty ploughs, - 47 5 0
Harrows and rollers, 12 0 0
Dairy furniture, 51 0 0
Screens, rakes, shovels, ropes, lines,
&c. &c. &c. - 80 0 0

Seed.

For 1920 acres of turnips, - 48 0 0

Labour.

Three earths on
1920 acres of
turnip-land, £. 192 0 0

Harrowing, - 24 0 0

Sowing, - 24 0 0

Hand-hoeing, at
10 s. - 960 0 0

Employing the
team at leisure-
times, (that they
may not be idle)
in bringing in
ling, whins, straw,

Carry over, £. 1200 0 0 10066 16 0

(415)

Brought over, £. 1200 0 0 10906 16 0
or stubble, bought
at a distance, vir-
gin-mould, or
peat, &c. &c. in
heaps, ready for
future use, 0 0 8 100 0 0
Sundry small un-
specified articles, 2 50 0 0
27 per cent. 0 0 0 0 0 0
Sundry articles.

Shoeing, £. 30 0 0
Wear and tear, 100 0 0
Keeping 50 horses,
at 12 l. 0 0 0 0 0 0
Market expenses, 1 0 0 0 0 0
Cash in hand, 300 0 0
£. 13652 16 0

Produce,
1920 Acres of turnips, sold to be
fed off with sheep, at 1 l. 10 s. 3840 0 0

Second

Second year.

Expences.

Rent, &c.	-	-	-	134	8	0
Seed.						
212 Wheat, *	£.	106	0	0		
636 Spring-corn,		318	0	0		
212 Clover,	-	42	8			
212 Turnips,	0	0	5	6		
106 Carrots,	-	31	16	0		
212 Cabbages,	-	31	16	0		
330 Lucerne,	-	99	0	0		
424 Grass,	-	424	0	0		
				1038	6	0

Labour.

One earth	6	12	0			
acres of wheat, *	£.	10	12	0		
Harrowing,	0	0	2	12	0	
Sowing,	0	0	1	2	12	0
Water-furrowing,	0	0	1	8	0	
Reaping and har-						
vesting, at 6 s.			63	12	0	
Thrashing, 5 qrs. per						
acre, 1060 qrs.						
at 2 s.			106	0	0	
Carry over,	£.	186	17	0	1192	14

* This wheat I suppose sown on one earth the preceding autumn, after the sheep had fed off the turnips.

Carrying

Brought over, £. 186	17	0	1192	14	0
Carrying out, 40 at a	2	12	0		
time, 26 journeys,					
Three earths on 636					
acres of spring-					
corn, - - -	95	8	0		
Sowing, - - -	23	17	0		
Harrowing, - - -	23	17	0		
Sowing 212 of clover,	2	13	0		
Ditto 424 of grass,	21	4	0		
Water-furrowing,	4	4	0		
Rolling, - - -	1	0	0		
Mowing and har-					
vesting, at 4 s.	127	5	0		
Thrashing, 6 qrs.					
per acre, 3816					
qrs. at 1 s. - - -	190	16	0		
Carrying out 3000					
qrs. of barley, 30					
at a time, 100					
journeys, - - -	10	0	0		
Five earths on 212					
acres of turnips,	53	0	0		
Sowing, - - -	2	13	0		
Harrowing, - - -	2	13	0		
Carry over, £. 747	19	0	1192	14	0
VOL. II.	Ec		Hand-		

Brought over, £	247	19	0	11	11
Hand-hoeing twice,	106	0	0	0	0
One earth on	106	0	0	0	0
acres of carrots,					
trench-ploughed					
with 12 horses,	20	0	0	0	0
7 men, at	25	1	8	37	2
Sowing,	0	0	0	5	6
Harrowing,	0	0	0	1	6
Hand-hoeing, at	3	1	8	0	0
Digging up,	0	0	0	1	0
Carting home, at	5	1	26	10	0
Four earths on	212				
acres of cabbages,	42	8	0		
Digging the feed-					
bed and sowing,	3	0	0		
Planting, at	5	0	1	53	0
Four horse-hoeings,					
at 6 d.	-	21	0	4	0
Two hand-hoeings,					
at 8 s.	0	0	0	84	16
Cutting and carting,					
at 5 s.	0	0	0	53	0
Three earths on	330				
acres of lucerne-					
land,	-	49	10	0	
Carry over, £	1655	1	6	11	12
					14

(419)

Brought over, £.	1655	1	6	1192	14	0
Harrowing, -	4	2	6			
Drilling, -	8	5	0			
Hand-hoeing four times, at 6 s.	396	0	0			
Cutting three times, at 1 s. 6 d. -	74	5	0			
Raking together, loading, and cart- ing home, at 1 s. 6 d. -	74	5	0			
Carting 5000 loads of virgin-earth, black mulry- earth, or peat, &c. &c. &c. to farm-yard, 200 per day, 3 d. per load digging and filling, and 1 s. 3 d. driving, 10 men, 25 days, at 3 l. 2 s. 6 d. -	78	2	6			
Mixing 5000 loads of earth with 8000 of dung,						
Carry over, £.	2290	1	6	1192	14	0
Ee 2				13000		

(420)

Brought over, £. 2290 1 6 1192 14 0
13000 in all, at
1 d. - - - 54 3 4
Carting 13000 and
spreading, 200
per day, 65 days,
at 2 l. 2 s. 6 d. 138 - 2 6
Sundry articles con-
cerning cattle;
two men, - 48 0 0
Sundry small un-
specified articles, 50 0 0
2580 7 4
27 per cent. - 696 12 0
3276 19 4

Sundry articles.

Shoeing and wear
and tear, - £. 130 0 0
Horses, - 600 0 0
Market expences, 5 0 0
Straw, - - 150 0 0
Sundry small arti-
cles, including a
drill-plough, - 50 0 0
935 0 0

Carry over, £. 5404 13 4

live

Brought over, £. 54⁰4 13 4

Live Stock.

330 Cows, -	£. 1650	00
212 Oxen, at 7 l.	1484	00
198 Steers, at 6 l.	1188	00
5000 Sheep, at		
14 s.	3500	00
70 Sows, - -	100	00
		7922 00
	£.	13326 13 4

It is here necessary to add a few explanatory remarks upon this year's expence. I suppose the farm thrown into the following crops:

212 Wheat,

212 Spring-corn,

212 Clover,

212 Turnips,

106 Carrots,

212 Cabbages,

330. Lucerne,

424 Natural grafts.

And great progress is this year made in the design of this arrangement; for the spring-corn amounts to the 424 of grafs, and the 212 of clover; so that the year following, the whole farm will be in the

situation in which it is to remain ; and I cannot but think it a most beneficial one : for here are 848 acres of arable land thrown into the common course, of, 1. turnips ; 2. barley ; 3. clover ; 4. wheat ; which, for dry sound loams, is the most advantageous of those used by any common farmers : besides this tract, there are 318 acres annually in cabbages and carrots, 330 of lucerne, and 424 of natural grass ; so that the stock of cattle is immense ; and, consequently, the whole farm in a perpetual state of manuring ; the common crops must therefore be vastly considerable.

In the management of cattle to food, I suppose the 330 acres of lucerne this year to maintain no more than 330 cows, which will be winter-fed (with the assistance of straw) by 66 acres of the cabbages ; of the remaining 146 acres, 80 are for sheep, and 66 will fat three times as many beasts, or 198.

The 106 acres of carrots fat 212 oxen.

Of sheep I have supposed so large a flock as 5000, on account of the great probability of there being a right of commonage annexed to the farm. Indeed, if a man chuses, in this case, there can be no doubt
of

of his gaining this point, and having the command of any sized flock within his power to winter: and this is a point of great importance; for, keeping a large flock of sheep on the waste, and folding it the year round on the farm, is a vast improvement of the latter; 5000 sheep, at two superficial yards each, will manure every night above two acres of land, or above 650 acres in a year, which alone would be sufficient to keep the farm in great heart, if well managed.

Produce. *l. s. d.*

1060 Qrs. of wheat, at 2 <i>l.</i>	2120	0	0
3000 Qrs. of barley, at 16 <i>s.</i>	2400	0	0
330 Cows, - <i>l.</i>	1650	0	0
212 Oxen, at 12 <i>l.</i>	2544	0	0
198 Steers, at 9 <i>l.</i>	1782	0	0
Profit on 5000 sheep, - <i>l.</i>	2500	0	0
	<u>£. 12996</u>	0	0

Third year.

Expences. *l. s. d.*

Rent, - - - 134 8 0

Live stock.

330 Cows, - <i>l.</i>	1650	0	0
330 Heifers, at 4 <i>l.</i>	1320	0	0
Carry over, <i>l.</i>	2970	0	0
	<u>134</u>	8	0

E e 4

212 Oxen,

Brought over, £. 2970 0 0 134 8 0
 212 Oxen, at 7 l. 1484 0 0
 Swine, - 100 0 0
 ————— 4554 0 0

Seed.

For 212 acres of
 12 wheat, - £. 106 0 0
 212 Spring-corn, 106 0 0
 212 Clover, - 42 8 0
 212 Turnips, - 5 6 0
 106 Carrots, - 31 16 0
 212 Cabbages, - 81 16 0
 ————— 323 6 0

Labour.

On 212 acres of
 wheat, as in last
 year, - £. 189 10 0
 Three earths on 212
 acres of spring-corn, 21 16 0
 Sowing, - 2 13 0
 Harrowing, - 2 13 0
 Sowing clover, - 2 13 0
 Water-furrowing, 1 8 0
 Rolling, - 0 12 0
 Mowing and har-
 vesting, at 4 s. 42 8 0

Carry over, £. 273 13 0 5011 14 0
 Thrashing

Brought over, £	273	13	0	50	11	14	0
Thrashing, 6 qrs.							
per acre, 1272							
qrs. at 1 s.	-	63	12	0			
Carrying out 822							
qrs. 30 at a time,	4	4	0				
Labour on turnips,							
212 acres, as							
before, -	164	6	0				
Ditto, 106 acres of							
carrots, -	494	4	6				
Ditto, on 212 of							
cabbages, -	257	8	0				
Four horse-hoe-							
ings of 330							
acres of lucerne,							
at 6 d. -	33	0	0				
Two hand-hoe-							
ings, at 8 s.	132	0	0				
Four cuttings, at							
1 s. 6 d. -	99	0	0				
Raking together,							
and loading, -	99	0	0				
Labour on manure,							
as before, -	270	8	4				

Carry over, £. 1890 15 10 50 11 14 0

Cutting

Brought over, £. 1890 15 10 50 11 14 0

Cutting or grub-

bing up of

the spontane-

ous growth of

the waste, 100

waggon-loads,

and carting

them to farm-

yard, at 5s. - 25 0 0

Chopping and

raking and

carting 2 12

acres of stub-

ble, at 2s. 3d. 23 17 0

Cutting chaff, 10 0 0

Labour concern-

ing cattle, 2

men, - - 48 0 0

Sundry small un-

specified arti-

cles, - 50 0 0

Mowing, mak-

ing, stacking,

&c. 424 acres

of grass, at 8s. 169 12 0

Carry over, £. 2217 4 10 50 11 14 0

27 per

(427)

Brought over, £. 2217 4 10 5011 14 0
 27 per cent. 598 11 0
 ————— 2815 15 10

Sundry articles.

Shoeing, and wear
 and tear, £. 130 0 0

Market expences, 3 10 0

Straw, - - - 200 0 0

Sundry articles, 40 0 0

————— 373 10 0

£. 8200 19 10

Produce.

l. s. d.

1060 Qrs. of wheat, - - - 2120 0 0

822 Qrs. of barley, at 16 s. - 657 12 0

660 Cows, - - - 3300 0 0

212 Oxen, 12 l. - - - 2544 0 0

330 Heifers, at 7 l. - - - 2310 0 0

Sheep, - - - 2500 0 0

————— £. 13431 12 0

RECAPITULATION.

Improvement, stock, and first l. s. d.
 year, - - - 13652 7 0

Interest, - - - 682 12 0

————— Carry over, £. 14334 19 0

Expences

Brought over, £. 14334 19 0
 Expences of the second year
 exceed the produce of the
 first, - - - 6486 0 0
 Interest, - - - 1041 0 0
 Total necessary to stock, £. 21861 19 0
 11 l. 7 s. per acre.

ANNUAL ACCOUNT.

Expences. l. s. d.
 Rent, - - - 134 8 0

Live stock.

330 Heifers, at
 4 l. - £. 1320 0 0
 212 Oxen, at 7 l. 1484 0 0
 100 Steers, - 500 0 0
 - - - 3304 0 0

Seed.

The same, as before, - 323 6 0

Labour.

On wheat, as be-
 fore, - £. 189 10 0
 On barley and oats,
 ditto, - 151 19 0
 On turnips, ditto, 164 6 0
 On carrots, ditto, - 494 4 6
 On cabbages, - 257 8 0
 Carry over, £. 1257 7 6 3761 14 0
 Labour

Brought over, £.	1257	7	6	3761	14	0
Labour on cul-						
cerne, -	363	0	0			
On manure, as						
before, -	295	8	4			
On stubble, -	23	17	0			
Chaff, -	10	0	0			
Mowing, making,						
carting, stack-						
ing, &c.	324					
acres of hay,						
at 8s. -	129	12	0			
Two men, -	48	0	0			
Sundry unspeci-						
fied articles, -	50	0	0			
	2177	4	10			
27 per cent. -	587	15	0			
				2764	19	10

Sundry articles. 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590,

Shoeing and wear and tear, £.130 0 0

Market expences, 3 10 0

Straw, most - 200 000 000 bms. , val 100

Sundry articles, 40 0 0

373 10 10

£.6900 3 10

Produce.

Produce,		
1060 Qrs. of wheat,	-	2120 0 0
822 Qrs. of barley,	-	657 12 0
660 Cows,	-	3300 0 0
212 Oxen, at 12 l.	-	2544 0 0
330 Heifers, at 7 l.	-	2310 0 0
100 Steers, at 9 l.	-	900 0 0
Profit by 5000 sheep,	-	2500 0 0
		14331 12 0
Expences,	-	6900 3 10
		7431 9 10
Interest,	-	1093 2 0
Profit,	-	£. 6338 7 10

The capital pays 34 l. per cent.

The reader observes, that I suppose the 330 acres of lucerne to feed two cows and fat an heifer each; the carrots fat, each acre, two oxen.

The cabbages, or 212 acres, are used, 132 acres for the cows, and 80 for the sheep. The turnips are all used for the sheep.

324 Acres of grass are mowed each year for hay, and 100 fat as many steers.

The flock every year manures 650 acres; there then remains 1270 unmanured.

Now, the farm-yard spreads over this quantity of land every year at the rate of ten

ten loads *per acre*. Thus the whole farm, corn, grass, roots, clover, every thing, is manured every year. Under such a circumstance, it would have been very absurd not to rate the crops at a height, which, in comparison with the effects of common management, appears extravagant; but the rule of common management has nothing to do with farms conducted in so perfect a manner. The clover, turnips, cabbages, and carrots, are all ameliorating crops, of themselves beneficial to the land, without considering the use they are applied to. These amount to 742 acres; whereas the wheat and spring-corn, which are the only exhausting ones in the whole farm, amount but to 424. Further, all the turnips, and a part of the cabbages, are fed off with the sheep; consequently, that part of the farm is every year *doubly* manured; and yet only the turnip-land is succeeded by an exhausting crop. Instead of estimating the spring-corn at six quarters, I am confident I ought to have rated it much higher; for it is supposed every year to grow almost in a dunghill.

The

The extreme manuring of this farm, it is to be remarked, succeeds a paring and burning, and ample liming. Common farmers, upon the credit of these alone, reap many successive and great crops of corn; but, on the contrary, all these treasures are preserved in the earth, and such plentiful manuring is added to them, that the exhausting crops bear no proportion to the fund of fertility prepared for them. Thus the whole farm is in a continual *increase* of fertility, which is a point of infinite importance; for all the crops must infallibly increase in proportion; consequently, there will be an annual increase of cattle, and this again increases dung, and brings round the circle of consequences yet quicker. The profit of a farm once brought into such a situation, and conducted upon such a plan as I have sketched, with a particular attention to sow no more exhausting crops than here minuted, would be immense, far beyond what I have deduced, great as that may appear.

An annual income of above 7400 £ . arising from a capital of 21,000 £ . is a greater degree of success than which, I
 1 apprehend,

apprehend, the most zealous will scarcely expect: and a profession capable of such noble profit, is, I think, an object worthy of attention to all those who suppose *trade* the only road to a great fortune.

- I imagine the occupier of such a farm acts, as all do who enter into trade, melt down the principal part of their profit in their stock, and perpetually increase their business.

There are many such tracts of land as I have described so situated, that if many hundred thousand pounds were employed as a capital, they would not stand still for want of land to proceed further. Suppose my cultivator has fixed himself in an extensive waste, so as that he may add at will to his farm on all sides: suppose he lives upon an income of 1,338 *l.* 7 *s.* 10 *d.* a year, he will then have 5,000 *l.* a year to expend in new improvements. The boundaries of this work will not allow me to trace these additions minutely; but we may determine, and that clearly, that the profit will be equal to that of the first capital: the fact throughout all husbandry is, that such profit is *superior*, when the

management is judicious; and in this case, the point is particularly evident; for the expence on any addition will not be nearly equal to the proportion of the whole; the buildings and fencing are two instances among many. The account of the progressive increase will be as follows:

First year. £.
 Profit by first capital, 5000
 34 per cent. on 5000 l. 1700
 £. 6700

Second year. £.
 Capital 27,700 l. 34 per cent. 9418
 Private expences, 1418
 8000
 34 per cent. on 8000 l. 2720
 £. 10720

Third year.
 Capital last year, £. 27700
 Add 10720
 £. 38420
 34 per cent. 16062
 Private expences, 2062
 14000
 34 per cent. on 14,000 l. 4760
 £. 18760

Fourth

(435)

Fourth year.

Capital last year,	£. 38420	
Add	18760	
	<u>£. 57180</u>	£.
34 per cent.		19441
Private expences,		<u>2441</u>
		17000
34 per cent. on 17,000 l.		<u>5780</u>
		<u>£. 22780</u>

Fifth year.

Capital last year,	£. 57180	
Add	22780	
	<u>£. 79960</u>	£.
34 per cent.		27186
Private expences,		<u>2186</u>
		25000
34 per cent. on 25,000 l.		<u>8500</u>
		<u>£. 33500</u>

Sixth year.

Capital last year,	£. 79960	
Add	33500	
	<u>£. 113460</u>	£.
34 per cent.		38576
Private expences,		<u>2576</u>
		36000
34 per cent.		<u>12240</u>
		48240
Capital,		<u>113460</u>
		<u>£. 161700</u>
	F f 2	Accord-

According to this account, at the end of the sixth year, the amount of the capital is 161,700 *l.* a prodigious sum of money.

It may perhaps be remarked, that this account is too much accelerated, as more time should be allowed for the improvements: but to this I answer, that I am here sketching for curiosity what may easily be done, and what is executed in small concerns, viz. inclose, pare and burn, lime, and sow turnips all in the first year. Indeed this is no more than the proper expedition which ought always to be practised. And it is a peculiar advantage in the improvement by paring and burning, that it throws you at once into possession of land in order for any thing.

If my *data* are just, the edifice I erect upon them, I am confident, will stand; for, if 34 *per cent.* is acquired by a first improvement, any one, the least conversant in matters of this sort, must be sensible, that the profit will increase beyond the proportion of the additions to stock, and that notwithstanding all those expences which are peculiar to large, rather than small stocks.

Throughout

Throughout the preceding calculation, I have deducted the 27 *per cent.* on labour; although that is somewhat inconsistent with the plan; for it would be idle to suppose a man engaged in agriculture to the amount of above 20,000 *l.* without a better knowledge of the practical parts of it, than those gentlemen profess, who are at present generally employed in it. And herein I mean the oeconomical parts of it. If a gentleman undertakes such improvements as here sketched, he ought to know so much of the matter as at least to render the 27 *per cent.* on labour, all the deductions to be made on account of his being a gentleman: nor is this an improbable supposition, if it be considered how small a part of this farm is under corn, which is the most complex part of his business.

There are many wastes, wherein five times, and even ten times, as much *good* land is to be seen as I have supposed: a want of that can never be urged.

But it matters not a groat to the great point of improvement, whether the rate *per cent.* be 34 or 17, whether a man makes 160,000 *l.* in six or in sixteen years.

The real and genuine advantage of improvements, and the capability of making a great fortune, remain the same: and agriculture, without such immense profit, is, beyond all doubt, a proper sphere for the employing the time and money of those who want to employ both to advantage.

Agriculture, upon the whole, whether in cultivated or in uncultivated countries, appears, from the preceding view, to be a most profitable business, and of capital benefit not only to common farmers, but also to gentlemen, and a more proper and more eligible employment for them than either trade or manufactures, and in many cases, than the learned or genteel professions.

But this profitableness, in all cases, depends much on the entering into the business with judgment and spirit. This is the situation in which a proper knowledge of all the circumstances relative to the hiring and stocking farms, is of great importance.

The turning husbandry to good account, clearly depends on the appropriation of a sum of money proportioned to the business. In this point all common farmers are greatly

greatly deficient; scarce an instance but of men whose land is too extensive for their money. The sums which are here sketched are much larger than have ever been supposed necessary; and yet it is clearly to be proved, by figures, that any material deduction from the sums of stock will inevitably be attended with corresponding failure in the profit. To apply money enough to the undertaking, is the grand point in husbandry; and it has been the principal aim of these sheets, to discover what sums are requisite in every case.

It has also appeared, that the different methods of disposing of any sum in agriculture, are attended with a great variation in profit, insomuch that a proper choice of a farm, when several are to be had, is a point of material consequence. Comparisons between many kinds of farms are here drawn up, rather to assist individuals in forming similar calculations for their respective circumstances, than as absolutely accurate estimates.

As to the particular variations, the most important are noted and explained in the

proper places. It is, in general, to be remarked, that a clear idea of variations in conduct corresponding with those of soil, is a matter of much importance, and should be attended to with care.

The reader, I hope, will excuse any small inaccuracies which may have crept into this long series of calculations: As a minute certainty in each sum is not of consequence to the general aim of the work, such accuracy may be the better dispensed with.

The

THE FARMER'S GUIDE.

B O O K III.

THE following chapters being equally applicable to both cultivated and uncultivated land, will best appear in a book by themselves. They contain some loose remarks on two points :

I. The nature and disposition of the buildings that compose what is called in some countries, a *farm-yard*; in others, a *fold-yard*; a *fold-garth*; a *straw-yard*; and in others, a *rack-yard*.

II. Some hints to such gentlemen as enter into the list of farmers for amusement alone.

CHAP.

CHAP. I.

Of farm-yards.

THERE is not, in the whole range of husbandry, a point of such acknowledged importance as that of thorough manuring. As to such of the advocates of the new husbandry as *reject* the assistance of manures, there is too much of the whimsical hypothesis in them to deserve a serious attention.

Some situations are so very fortunate, near great cities, &c. that manures of the best sort, and in great plenty, are to be procured upon very easy terms. But I at present address myself to those whose situations either will not allow of such manuring, or whose farms are too extensive to be served by such means alone. Farm-yard manure is of great consequence to such.

But with many, the great use of the buildings of a farm are the *immediate* use of them; to such it should be remarked, that a convenient arrangement is of great importance to the welfare of the cattle; to preventing a waste of food, and to saving labour.

For whatever uses, and in whatever situations buildings are raised, it certainly imports

imports the conductor of them to render them as convenient as possible.

Convenient well-designed offices are always as cheap, and in most cases cheaper, than the contrary ones. In most farms we see detached straggling edifices, which, if united, might have been erected for two-thirds of the expence, and, at the same time, be infinitely more convenient.

Many gentlemen erect new farm houses and yards; and in the preceding calculations are many supposed improvements of waste lands, in which houses, offices, and every thing are erected new. In both these cases, it surely is of importance to consider a plan before the works are begun, that all advantages may be taken that are possible.

There cannot be a more pernicious practice than that of many parts of England relative to the management of their cattle in winter. They keep them in the fields, where they stack their hay in readiness for them, and never confine even their cows, except for a few days at calving. It is evident from hence, that the quantity of manure must be very small; for the only way of raising large quantities is by means

means of plenty of litter in the yard, and feeding all the hay, &c. at one place.

The properest way of considering the requisites of a farm-yard will be, to state the several kinds of cattle to be provided for, and the several circumstances that should be attended to in each. First,

H O R S E S.

The team, while in stable, requires hay, oats, chaff, and straw: if they are kept in in summer, there should be a receptacle for such green food as they are fed with. There should be room for the harness adjoining. A space should be left before the stable-door for throwing out the dung, where it should remain; and the urine should be directed so as not to run to mere waste.

The hay-stack, or house sufficient for the use of the horses, should be adjoining the stable at the back of it, so contrived, that the trusses of hay may be moved from the stack to the hay-loft over the stable without trouble.

I say *trusses* of hay; for the practice of trussing ought to be universal; it has a thousand conveniencies over the common loose

loose method. A man knows, without any trouble, the quantity eat by every sort of cattle, and it is moved about without any waste, in a neat husbandlike manner.

A receptacle of straw for litter, should likewise be near the stable; if the horses are soiled in summer in the stable, the use of such a receptacle will be very great; for the dung so raised is immense, if the litter is plentiful.

It is a great convenience to have an oat-granary near the stable; it saves much trouble and labour. A large oat-bing opening into the stable serves the purpose very well. The chaff-bing should both open into the stable, and also be so contrived as to be situated near the barn, that none may be lost in carrying; and also, that there may be room to cut straw into chaff, which is absolutely necessary.

A receptacle for green food is highly necessary, if soiling is ever practised; for the common method in which farmers now and then soil their horses with clover, is very slovenly; the grass is either thrown into an empty stall, or left to wither in a cart or waggon; and if that is wanting for any thing,

thing, the load thrown down on the ground and trampled on by hogs and poultry.

Respecting the manure, some accurate cultivators keep *all* their cattle housed through the winter; in which case, the general receptacle of dung may be at some convenient spot not far from the buildings, and all the houses constantly cleared into a cart kept on purpose, and carried to the compost-hill. This is an excellent method, as the manures are well mixed; but the quantity is not so great as if some cattle are kept in the yard. In this way, the urine from the stable should be conducted in pipes or channels to a reservoir, and from thence pumped into a cart, and let out on the compost-hill as often as full.

In a large farm, it is a question whether there should be only one or more stables. I am for several, and that for more reasons than one. In a very large stable there are so many horsekeepers, that it is little more than a gossiping meeting; the horses are not so much attended to, as the fellows chattering, gaming, and idleness. This is more or less the case with all offices, but the more men the worse. By the stables being in separate divisions, they may be distributed

distributed at different parts of the yards; consequently, the dung will be the better mixed with that of other cattle. Lastly, separate stables may be under separate men, who, being responsible for the harness and trifling utensils belonging to the stable, may vie with one another in their regularity, and in the order of their horses.

O X E N.

There is no difference to be made (or at least but slight) between the oxhouse for draught oxen and those for fattening in the stalled way. Oxen, like horses, are fed with hay and chaff; and also with turnips, cabbages, carrots, &c. &c. For the hay, straw, and chaff, the same conveniences should be observed as for horses, but the green winter food requires others.

It is a great inconvenience in hard winters, to have the food to procure every day in a frost or snow, and the trouble and labour very great; for this reason, there ought to be receptacles for cabbages, carrots, turnips, &c. of a proper size for holding a pretty large quantity of them; and also with room for cleaning, slicing, &c. and these receptacles should be situated close to the oxhouse.

In

In the west of England they construct very complete oxhouses, in which every ox has a stall so large as to admit his turning in it; and at one end of it is a small trough of water; it is an excellent method of lodging them, but takes up much room, and is consequently very expensive.

If there are many oxen kept, the houses should be scattered for the same reasons as the stables.

C O W S.

Cows are fed chiefly with hay, and straw. This points out that the cowhouse should be properly situated with respect to the barns for the latter, and the hay-stacks for the former. There must also be proper bings for all the calves, and ranges of ties, as they are called in some places, for the cows, one for each. The house should be properly placed for cleaning into the yard, that the dung may be mixed with that of the other cattle.

H O G S.

Nothing contributes more to raising large quantities of excellent manure, than a great number of swine; but they require proper conveniences more than any other sort of cattle.

cattle. There must be apartments for fating them; for sows with pigs; for weaned pigs; and a general yard for store hogs. There should be cisterns for the hog-wash, from the farmhouse and dairy; and receptacles of fating meat, with a copper and boilinghouse, and room for stowing potatoes, carrots, &c. &c. All these conveniences should be compact with respect to each other, and well connected; and, at the same time, properly situated in the farm-yard for the general purpose of mixing dung.

Lastly, I should remark, that there ought to be proper provision of conveniences for feeding such cattle as are not confined to houses, but kept at large in the yards; such as proper racks for hay and straw; cover to protect them from the weather; and long bings for giving them turnips, &c. &c. in.

I have sketched these few particulars, to shew that there are many points of convenience to be attended to in the disposition of the buildings that surround a farm-yard. I shall next present the reader with a sketch of the necessary buildings united in a complete

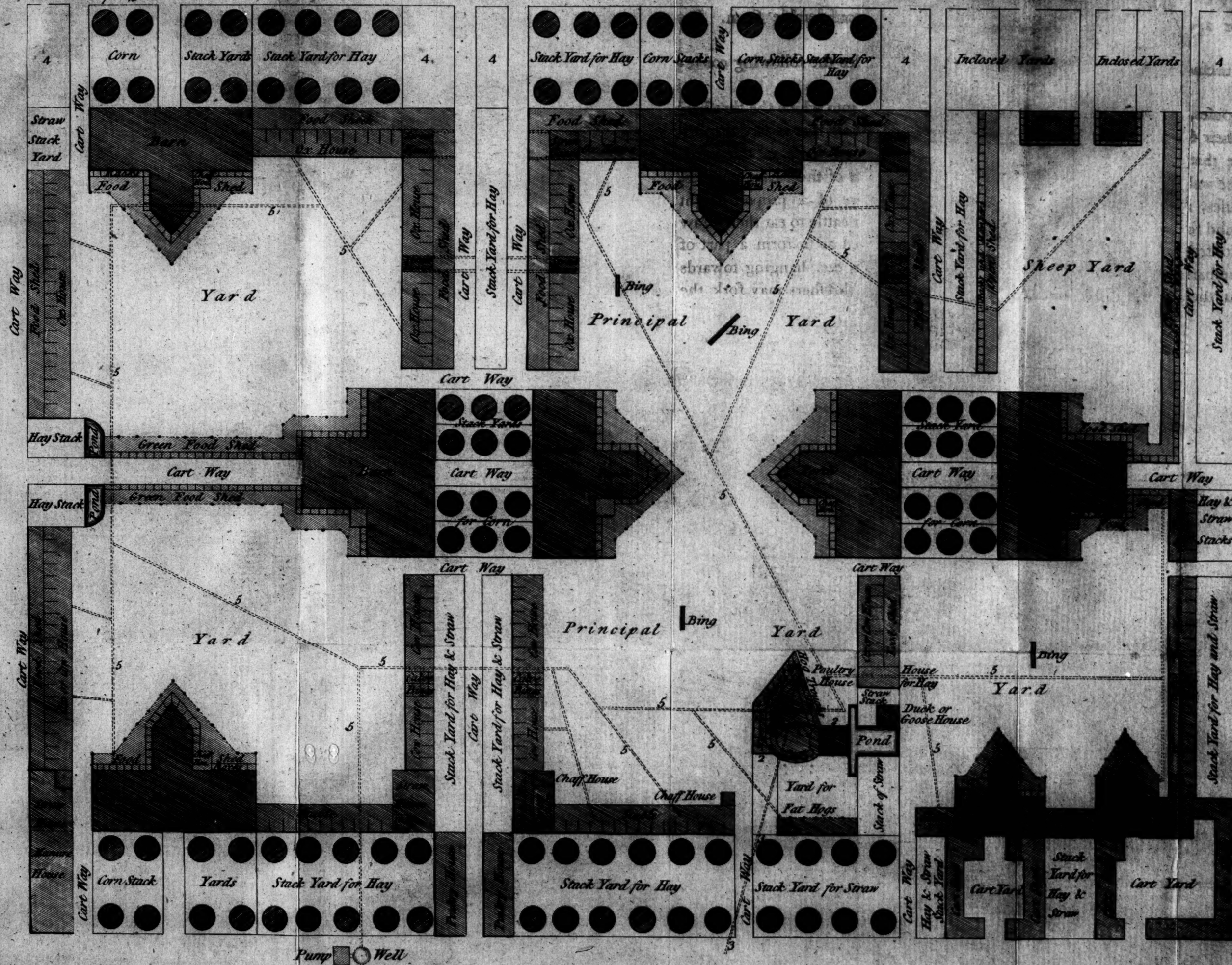
farm-yard for a considerable farm. See plate.

This yard includes the following conveniences:

(1) Strawhouses, into which the threshers fork part of their straw that is used directly by the cattle that go loose in the yard.

Racks in the walls of the barns, porches, and strawhouses, are of a proper height from the ground for cattle to eat their straw out of; so contrived as to form a part of the side of the barn, &c. hanging towards the yard, that the threshers may fork the straw directly into them on the inside of the barn, and the cattle feed on the outside. By means of which racks no straw is carried to cribs or racks in the yard, which is not only very troublesome, but equally wasteful; and it is also kept quite dry.

The sheds (called in some countries, *legu-
to's*) around the porches, &c. of the barns, resting on posts for the cattle to go under at will, and eat their straw out of the abovementioned racks. The sheds are of excellent use in keeping the cattle dry and warm, and will make them thrive much better.



better than in yards without such conveniences.

The bings are for giving the lean cattle that go loose in the yard some turnips, cabbages, &c. &c. occasionally.

The chaff houses have sliding windows that open into the barns, for the threshers, when they dress their corn, to throw the chaff into, that it may not be carried, and consequently half blown away and lost.

The stack-yards on the side of the barns, are to have the stacks raised joining to the barnsides, and the corn to be thrown from them directly into the barn, through windows made for that purpose. This is a contrivance which it is astonishing is not more practised; for the expence of carting stacks of corn into the barn is very great. It is necessary to wait for very fair weather, and the waste of corn is considerable. The expence of making such stackyards is no more than in scattered inconvenient situations, and in many cases not so great; but the advantages of it are such as would overbalance great expence.

The stackyards between the barns are contrived in the same manner as the others;

but so as to serve each two barns; one end of the stacks to one barn, and one end to the other. By means of this management, several purposes are answered at once, much expence saved, and great conveniency gained. By this situation of the stacks, the corn may be threshed in either barn at pleasure, according to the yard in which the straw is wanted.

The food-rooms, parted from the ox-houses by boarded partitions, are designed for receptacles of their food; particularly cabbages, turnips, carrots, chaff, malt-grains, oats, oilcakes, or in a word, for any thing with which beasts are fatted or fed, may excepted, as I suppose a chamber over the house for that.

Whoever has been conversant in stall feeding beasts, must have remarked great inconvenience, waste, and trouble, in giving the beasts their food, when it is carried in amongst them to their mangers. Suppose turnips their food, the farmer is very un-provident if his turnips are kept merely from hand to mouth; there ought always to be several days, or a week's store, before-hand; but in common offices, where are they

they to be laid? For want of the proper conveniences, they are tumbled down in the yard before the house, exposed to the weather, and to be trampled on by cattle. Most good farmers slice their turnips; but what a miserable inconvenience is it to execute such a work in the house itself amongst the cattle!

If they have chaff given them, what a loss and trouble to carry it every day in baskets, half blowing away! and then to carry it amongst the beasts to throw it into the manger. Whatever the food is, the inconvenience is very great. The cleaning away the dung, and the giving the beasts fresh litter, is work enough of reason to execute among them in one place.

To remedy such great inconveniences, I have sketched a house parallel with the ox one, (an inclosed shed is sufficient) for containing in proper bings and divisions all these sorts of food; places for chaff, and also for cutting hay into it; receptacles for cabbages, carrots, or turnips, and conveniences for slicing them: others for oil-cakes, malt-combs, or grains; meal, pollard,

corn, &c. &c. or such of them as a man chooses to use.

This management enables the cultivator to have always plenty of food beforehand, which, with some sorts, is a point of importance; carrots with a frost are absolutely fixed beyond the power of moving; and turnips are very difficult to get at. The other kinds of food are sometimes half lost and spoiled for want of proper places to dispose them in.

But one circumstance in the building the house is of very great importance; such a general receptacle of food as I have described, would be no of great use if it was not so contrived, as none should want carrying round to be thrown in the common way into the manger. Instead of this, I suppose a small sliding door in the boarded partition of the house, opposite the head of each ox, and just over the manger, for the people in the foodhouse to throw it directly in, without trouble or difficulty.

I likewise suppose the rack for hay to be so contrived in the partition of these houses, that hay may be thrown into it either from

again from the

80

the hay chamber even the oxen; or out of the foodhouse; and for this reason, the stalls may then be used in summer for feeding cattle with lucerne, or other soiling, which may be lodged in the house like other food, and given with the same ease.

The dotted spots extending from the stacks across the cartway to the oxsheds, denote a connection for the conveyance of the hay in trusses to the haychamber there, over the foodhouse and the waggonway, something in the stile of a foot-bridge, for a man to carry the trusses, would be most convenient.

The pond waters the principal yard and also another.

The boilinghouse for the hogs is situated close to the pond, with a pump in it for raising water directly into the copper.

The malony of the hogcisterns is worked so closely in terras, or otherwise, as to contain liquor without any loss. This cistern is in three divisions, one to contain food for fat hogs, another for sows and pigs, and the third for lean hogs; all three communicate with the boilinghouse, in which a trough, turning on a swivel, hangs

from the copper, and moveable at pleasure
to either of the cisterns. The path around the cisterns for taking
food out of either, and putting it directly
into the hogtroughs, is necessary. The troughs fixed in the partition pales
or walls, open by hanging doors, on one
side to the path, and on the other to the
hogs to feed, by which means there is no
loss by spilling their food, as any one must
have remarked to be the case, when it is
carried in among the hogs; and the convenience of pouring it directly out of the
cisterns into the troughs, saves an infinity
of trouble. The apartment of the fat hogs corresponds exactly with the cistern which belongs to them, and has a shed for them to
recede under; and also, a stack of straw or
chubble, or any thing else, to litter their
yard with. The apartments for sows and pigs,
correspond exactly with another division
of the cistern. No building is erected against the lean
hog cistern and troughs, as the latter is
supposed to be open on one side to the
farm-

farm-yard, as the hogs fed in them are only
 such as run loose in the farm-yards. Their
 troughs should be filled at stated times,
 according to the other food they have.
 There is a stack of straw, stubble, &c.
 &c. for scattering in the space before the
 lean hogs troughs, as they will, by con-
 stantly feeding there, turn it speedily into
 dung. It likewise serves a little cowhouse.
 This point of having a straw or stubble
 stack to every set of hogs, is absolutely
 necessary when many are kept, or the loss
 of manure infinite. Nothing about a farm
 will make such quantities of excellent ma-
 nure, as hogs well-managed. But this
 consists principally in keeping them per-
 fectly clean and well-littered, a business
 which, I may venture to assert, is never done
 when there is no man about the farm for
 superintending the hogs alone: if the busi-
 ness is too small for that purpose, much loss
 of manure is sure to be suffered; but if ten
 men were kept for the purpose, the effect
 would be but trifling, unless every thing was
 so conveniently disposed, that they could
 have nothing to move far: workmen of all
 sorts are as careful as possible to do as little
 work

work as they can; and if straw, or other litter for hogs, is to be brought from any distance, the farmer will find but a paltry heap of dung at the end of the winter; but if the stacks are so conveniently situated, that much may be spread with little trouble, he will then find the advantage of creating the conveniences as I have sketched. I am the more particular in dwelling on this point, as there are many situations where manures are not to be purchased; but plenty of straw and stubble; in such the cheapest way of manuring land is by winter-fattening great quantities of cattle; and hogs are more effectual in it, as well as their dung being much better, than that of other cattle.

(2) These spots denote the foundations of a granary, to be erected over the pillars and troughs. It is to rest on posts or columns of brick or stone work founded at these spots. The floor of the lower room should be about 8 feet above the level of the path and troughs. The spots at the corners of the boiling house, are only to denote, that that building is to be carried up as high as the other granary, which

height

height must depend on the business of the farm, or the number of hogs designed to be kept; for there may be several stories, so as to contain vast quantities of food. There must also be a crane and wheels for unloading waggons, and drawing the stacks up.

This granary must be contrived to answer more purposes than one; from the first floor (which should be the same as that of the boilinghouse, and all in one room) there must be boarded tubes to the copper, to each of the cisterns, and to the troughs of the fat hogs; all which are absolutely necessary.

In the first place, potatoes, carrots, &c. &c. should be lodged in these rooms for boiling for all sorts of swine, from fattening down to keeping lean hogs.

Pease, barley, buckwheat, &c. &c. should be lodged here in meal, to be let down into the cisterns, either for fattening the hogs, or for the sows and pigs cistern, to mix with butter, milk, whey, wash, and carrot or potatoe liquor.

Pease, barley, or buckwheat should also be lodged here, in case the farmer chooses to fat

fat the swine with them unground; in which case, tubes should let them down into the troughs, which should be contrived in a manner common in some countries, to let down the pease by degrees, as the hogs eat.

By these several contrivances of boarded tubes from the granaries to the copper, the cisterns, and the fattening hogs troughs, a prodigious deal of labour, inconvenience, and expence is saved.—Nothing is carried, dropt, and lost. — The farmer, without stirring out of his granary, distributes corn, meal, &c. to whatever swine wants it.—He gives none of his people an opportunity to cheat and steal; all, points of much importance.

The fat hogyard has a mouth into the pond; a circumstance which must never be omitted: swine will not fat without water constantly at command. A trough supplied by water carried in pales, or pumped into, will neither of them be sufficient, and for a very evident reason; the hogs will depend on the memory of the servants, and woe betide fattening cattle that have no better dependence than that. With such conveniences

niences as I have sketched, it matters not a groat whether they are thoughtful or forgetful.

(3) This dotted line denotes a subterranean pipe or channel to convey the cheese-whey, butter-milk, &c. from the dairy to the fows and pigs cistern; a point which should not be neglected, as it saves an infinity of trouble and much waste. There should be small tubes (with plugs ready) in the walls between the cisterns, that the liquor may be let out of one into another at pleasure.

This range of hog-conveniences, though the whole farm-yard be not executed, may be erected separately on any farm that wants them.

I suppose boarded gates in the waggon-ways between the farm-yards, and in these gates small swinging doors, large enough to admit a hog, should be made, that the store ones may wander at pleasure through all, and come to the common troughs when the hog-herd sounds his horn. Distinct conveniences cannot be had without a useless expence to every yard, and it is necessary to have hogs in all, on account of their

their rooting, tumbling, and mixing the litter and dung.

The sheepyard for driving the flock into in bad weather, is highly necessary.

There are many very considerable farms with large flocks of sheep, that have no convenience of this nature, and yet I cannot but consider it as indispensable. No person can have been attentive to the management of sheep, without remarking the evils they are subject to in wet, stormy weather, deep snows, &c. &c. many are the lambs which are lost at such times for want of proper shelter. Indeed, it must be consistent with every one's reason, to suppose the advantages of having their sheep warmly and safely lodged, instead of their being exposed to all the injuries of the most destructive and violent seasons; for, without carrying this matter to the life and death of the lambs, we may safely assert the importance of being thus secured, to their health, strength, and growth.

Giving the sheep hay scattered about the fields, though it is in moveable racks, is a work of no small trouble and waste; but in a yard,

a yard, it is done with little inconvenience, and no waste.

Many writers have recommended the use of sheephouses for collecting their dung; the yard I have sketched will be attended with all those advantages.

The sheds around the yard for the sheep to shelter under, I think preferable to the whole yard being under cover; as a large flock would, I doubt, in such a case, be kept too hot.

There are racks and mangers for them to eat hay out of, and oats, bran, &c. (if thought proper); and also houses for keeping other sorts of food in, carrots, &c. &c. with mangers around, open on the inside to distribute the victuals, and on the outside for the sheep to feed. Oats, bran, &c. may be kept here to distribute in all the mangers.

(4) Yards, pens, buildings, &c. &c. left for any uses that may be found necessary, or that are peculiar to certain countries and management.

(5) These dotted lines denote subterranean pipes or channels to carry off the urine of all the stables, ox and cow houses, &c.

&c. and likewise the overflowings of the yards.

The general management sketched in the three last numbers, is of importance. Many authors have recommended the building a sterckory; but there are a thousand objections to it, nor is the thing possible to the extent of the business here supposed.

The subterranean conveyances I apprehend to be absolutely necessary, for so much water falls in rain, snow, &c. that without some means of conveying the surplus away, it will infallibly abound too much. I propose grates in certain places over the subterranees to let the water through; but these should not be in the lowest parts, that all the water may not run off, only when it rises too high.

The management of the yard manure I venture to propose as follows:

The end of summer, and the beginning of autumn, let the area of all the yards be covered at least two feet deep with marle or chalk, virgin-earth, ditch-earth, mole and ant-hills, turf, clay, or any of these; then let the stubble and refuse straw be thickly spread over the whole, and on these
fodder

fodder the cattle all winter ; but the oftener the covering of stubble is repeated the better ; the stables, ox, cow, and hog-houses, are all to be cleaned on to it ; and if the men are set now and then to scatter the heaps that accumulate against these, it will be so much the better.

After the winter, let the whole be turned over and well mixed : there are then two methods of using it, either to cart it directly on to the land, which, in some soils and systems of management, may be the best way ; or to cart it on to a heap for further mixing, which, for many crops, is the better way, and is indispensable for grass-land.

If the latter method is pursued, let the heap be made near the well into which the subterraneans are laid, and with such an extended surface and gentle ascent on the ends, as to admit the water-cart with ease. The succeeding summer, it should be turned and mixed together, twice at least ; and, during the following winter, all the drainings of the yard should be carted on to it, and the whole turned once more : it will then be found to be a compost of the most rich and

fertilizing nature.—When the new year's cleanings of the yards form another hill, the old one is ready to be carried on to the land then, or afterwards, as occasion requires. Thus, I suppose, there is always one hill by the pump; consequently, no urine is ever lost.

If the former method is pursued, of carting the compost directly from the yards into the fields, then the farmer should always keep a large heap of marle, chalk, virgin-earth, turf, &c. &c. by the well, on purpose for receiving its contents; and by frequent turning and mixing, it will become an admirable manure.

But having advised marle, I should remark, that a very ingenious gentleman of my acquaintance, (who will recollect the conversation, if he reads this passage) asserts marle to be improper, from its quality of preventing putrefaction; and founds his opinion on a trial of one of his tenants, who spread a layer of marle over his farm-yard, foddered for some time upon it, and then spread another layer and finished the winter's foddering upon that. When he

came

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one is ready to be carried on to the land
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the common, directly from the yards
the fields, then the farmer should
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opent turning and mixing, it will become



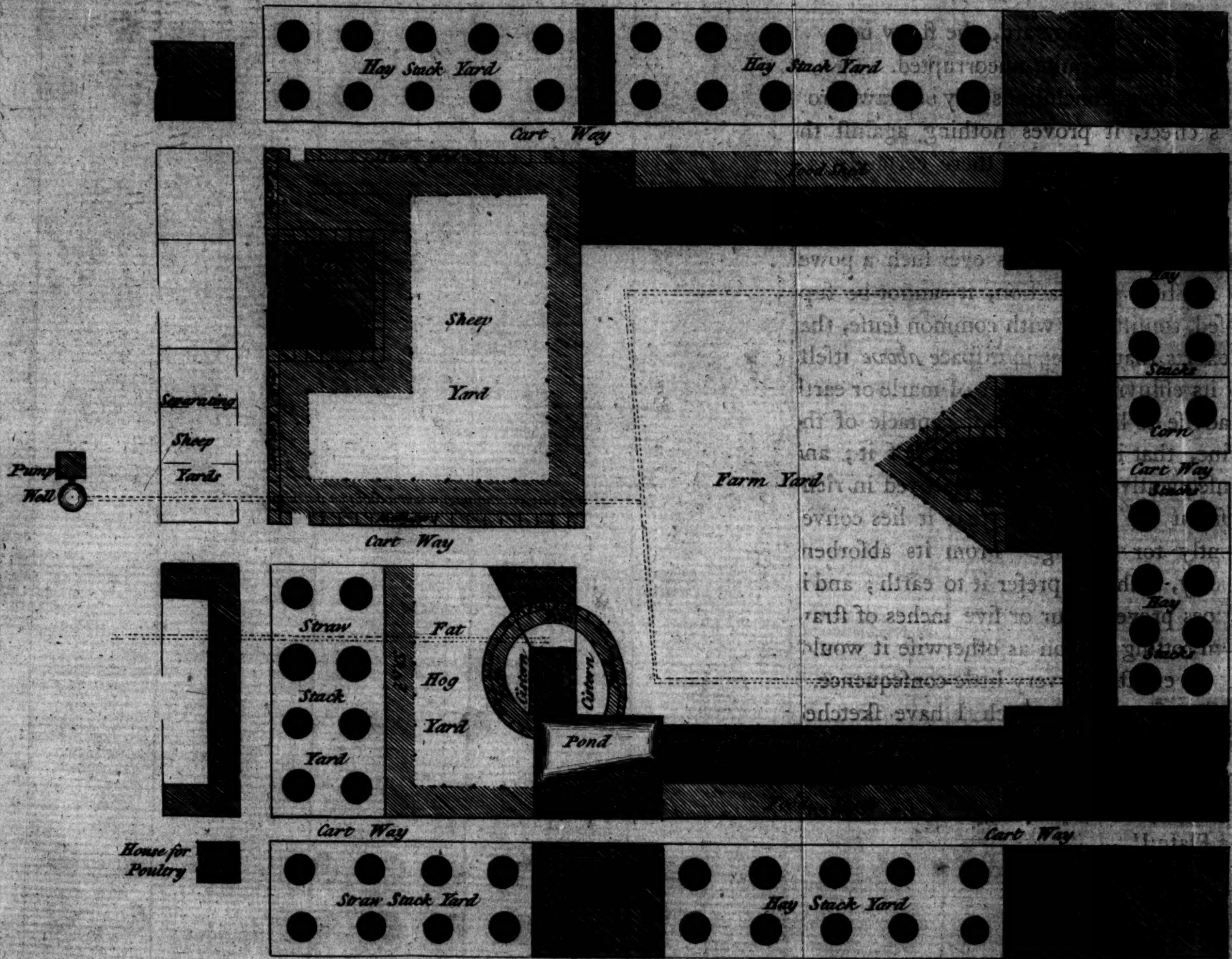
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in spread another layer and finished the
ter's foddering upon that. When he

Vol. II. Pl. 2. Fig. 1.



Fig. 2.





came to clear the yard, the straw between the layers was quite uncorrupted.

Whatever conclusions may be drawn from this effect, it proves nothing against the practice I advise; for there certainly is a great difference between a layer of marle at bottom, and inclosing the straw between two. If the marle has ever such a power in resisting putrefaction, it cannot be supposed, consistently with common sense, that it exerts that power in a space *above* itself, by its effluvia. The layer of marle or earth I advise to be used as a receptacle of the urine, that it may retain much of it; and consequently, be greatly improved in richness, at the same time that it lies conveniently for mixing. From its absorbent quality, I should prefer it to earth; and if it does prevent four or five inches of straw from rotting so soon as otherwise it would, yet the effect is of very little consequence.

The farm-yard which I have sketched above, is proper only for a very large farm: let us therefore, in the next place, imagine one that will be proper for a small farm. See Plate II.

H H B

F. House,

1. House, yards, or divisions, to be applied to such uses as may be wanting.

2. A drain under ground for carrying the urine and superfluous water into.

3. Drain or pipe under ground from the dairy to the sow and pig-cistern.

As a further explanation of some of the most unusual parts of these edifices, I shall add a perspective view of them.

Plate III. Fig. 1. Represents the nature of the sheds which surround the barns, for the cattle to eat their straw in, which is thrown into the rack from within the barn.

Fig. 2. Represents the sheds for food, which are contiguous to the ox ones.

Plate IV. Is a section of an oxshade, and all its appurtenances.

a. The haystack.

b. The waggonway.

c. The foodhouse.

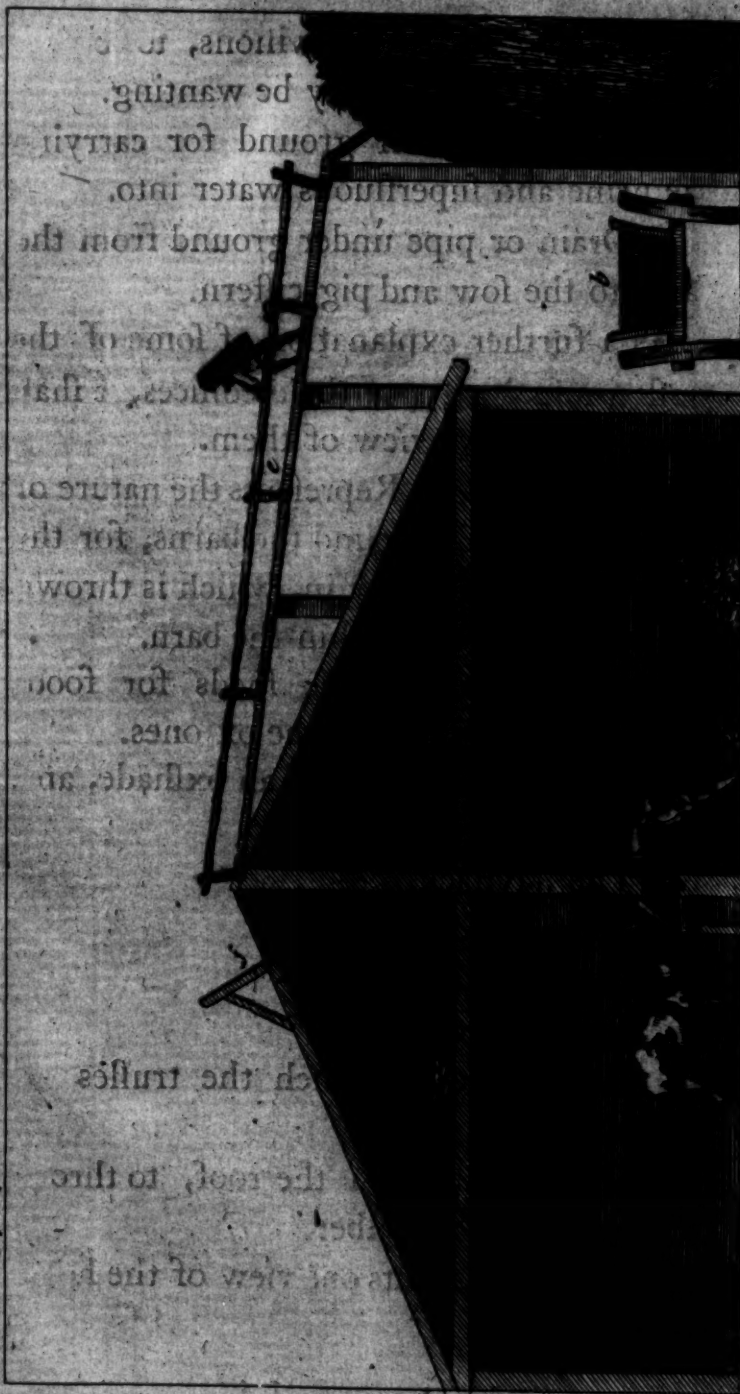
d. The oxshed.

e. The bridge on which the trusses of hay are carried.

f. The trap-door in the roof, to throw the hay into the chamber.

Plate V. Represents one view of the hog-houses, particularly the boiling-house.

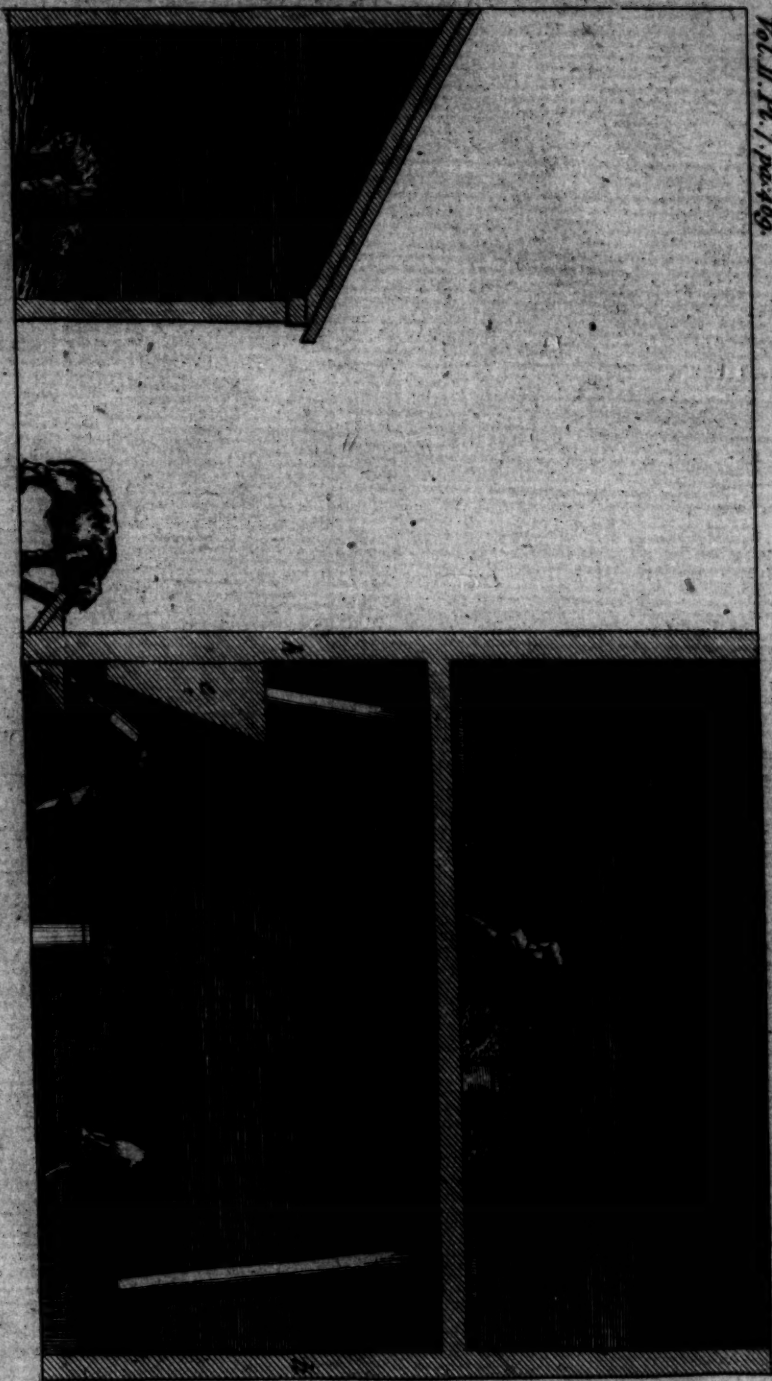
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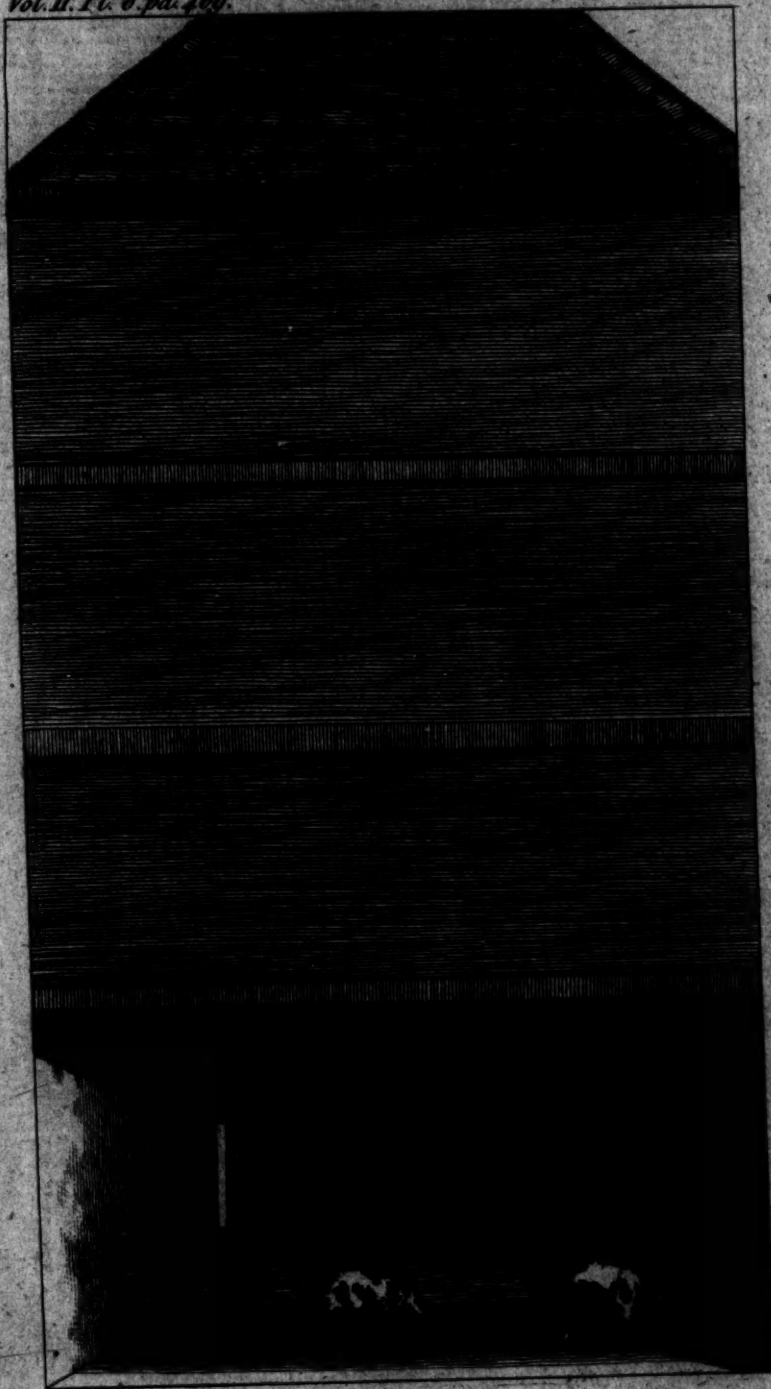


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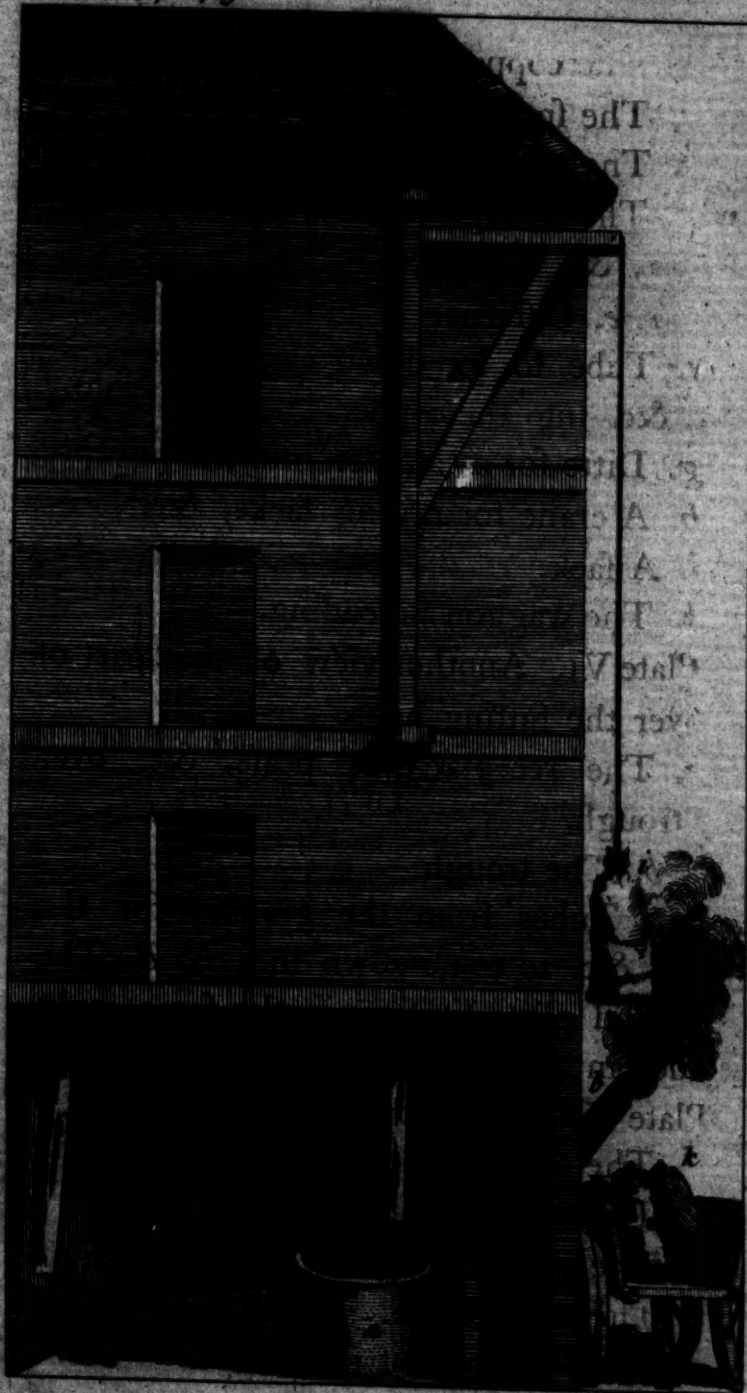




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- a.* The copper.
- b.* The smoke-tunnel.
- c.* The pump.
- d.* The trough into which the boiled liquor, &c. is poured.
- e. e. e.* Cisterns.
- f.* Tube to let down carrots, potatoes, &c. &c. into the copper.
- g.* Ditto for meal, &c. into the cisterns.
- h.* A crane for raising sacks, &c.
- i.* A sack.
- k.* The waggon unloading.

Plate VI. Another view of that part of it over the fattening-hogs.

a. The receptacle of pease, &c. over the trough.

b. b. The trough.

c. c. Tubes from the granary for the pease, &c. to come down in. *N. B.* The fow and pigs division is the same, only divided into apartments.

Plate VII. A section of the hoghouses.

a. The cistern.

b. The tube from the granary into it.

c. The granary.

d. The hog-trough.

e. The receptacle of pease, &c.

- f.* The tube from the granary into it.
g. The shed for the hogs to lodge under,
h. One of the posts on which the granaries are founded.

CHAP. II.

Hints to Gentlemen who farm for Pleasure.

IT is so much the fashion and the custom of the present age, for the nobility and gentry to farm, that many of them embrace agriculture as one among the number of their amusements: It will not therefore be improper, in this place, to offer a few hints for the consideration of those who apply a portion of their time and income to such pursuits.

I divide farming gentlemen into two sets: *First*, Those whose fortunes are so considerable as to be above an attention to economical minutiae: And, *Secondly*, Such as are not able to regard matters of expence with the same indifference.

It is always to be desired, when men of large fortune make the practice of agriculture a part of their amusement, that they would render even their pleasure sub-

servien

servient to the public good, which it is greatly in their power to do, if they practice husbandry in the *experimental* stile. Certainly there are many who follow this mode of farming, and it is impossible but the knowledge they and their neighbourhood thereby acquire, must turn out to the great benefit of their country.

But unfortunately, a vast range of experience is sometimes gained; and yet, paradoxical as it may appear, very little *experimental* knowledge. This is owing to a want of adopting some plan of agricultural operation, and giving an attention, either in person, or by a deputy to be depended upon, to the regular progress of the business. I do not herein mean, that people of high rank or large fortune should tie themselves, in the pursuit of an amusement, to the formal practice of a business. There is no kind of necessity for any extravagance of this sort; all I would venture to recommend is, to give some attention to the farming experiments; a practice which abounds with infinite amusement to such as love agriculture in general.

I cannot see much use in men of large fortune applying in a common manner to farming. To ride through a country and not be able to distinguish the gentleman's land from the common farmer's, is disgusting, and gives the spectator an idea of a want of taste and refinement in one who can practise an art susceptible of the most pleasing exertions of elegance, and yet confine himself to the vulgar path of clowns and hinds.

The want of spirit in this point is much owing to an attention to profit. Gentlemen even of very large fortune practise husbandry with a mere eye to consolidate the profit of the tenant with that of the landlord. Every man has a right to act as he pleases with his own property; nothing, therefore, upon the score of *right* can be urged against this practice;—but we often find such gentlemen boasting of their husbandry of this kind as a merit, and retailing in conversation the sentiments of celebrated authors upon the spirited professors of agriculture; the race of *improvers*; and the ingenious devisers of experiments, as if such sentiments were anyways applicable

cable to the John-trot Professors of the common husbandry of their neighbourhood.

A gentleman of large fortune practising farming without improving upon the customs of his neighbours, instead of deserving praise, merits nothing but disgrace. It is rather the exertions of a paltry oeconomy, than a desire of being serviceable to the public, in throwing new lights on the practice of husbandry.

It is warmly contended by some gentlemen, that their farms are *profitable* to them; that they make as much, or more than a common farmer by them, with other such assertions, as if it was a matter of consequence whether they gained or lost. These are very false and mean ideas; profit *ought* not to be the aim in these pursuits, but the good of mankind.

There are a multiplicity of improvements every where to be made on common practice, which, one would apprehend, must strike the attention of all gentlemen farmers. If the method of laying down arable land to grass is faulty; if wet lands remain such without draining; if wastes lie as such through mistaken notions concerning the advantage

advantage of cultivating them; if the
 courses of crops are bad, and tending to
 exhaust the soil; if the farmers are distressed
 for want of grass, and yet know nothing
 of the artificial ones; if they labour under
 distress for winter food for their cattle, and
 yet are unacquainted with the turnip, cab-
 bage, or carrot husbandry; if the method
 of fencing their grounds be faulty; if the
 improvements in common use are falsely
 constructed; if the method of tillage be
 more expensive than necessary, in using a
 waste of strength; if manures are to be had
 by digging, and yet remain untouched; if
 others are to be procured from town but
 none brought; if the breeds of cattle be
 inferior to others; and, in a word, if a
 thousand other cases of this sort, either
 wholly or partially, depress the agriculture
 of the neighbourhood, and prevent its
 attaining that perfection of which it is
 capable:—What is the gentleman farmer
 to do?—To sit down content with the
 common evils of bores and clowns?—No,
 surely; but to endeavour to eradicate false
 ideas, by displaying a more perfect practice.

He

He is therein a true patriot, and merits the thanks of his country.

Every one, I apprehend, will allow, that there is more pleasure in *experimental* than in *common* husbandry. In the latter the satisfaction of seeing a pretty good crop, speaks, it is true, to a man's avarice, but not to his imagination; but in trying various improvements, and in comparing them with the common methods, a new world opens to the view. Every step presents new scenes, and truth is gained by degrees, with as much entertainment in the pursuit, as importance in the possession.

To such gentlemen as are not solicitous about profit, I would humbly propose, that they should throw their husbandry into a series of experiments on points which peculiarly concerned their neighbourhood. And here I shall offer a few hints upon the conduct of experiments, which will not be foreign to my present design.

A man of large fortune must not be supposed to give a minute attention to the conducting each trial through every operation from seed-time to harvest. Such accuracy is (with him) no more necessary

than a minister of state writing his own dispatches. All the trouble that he can be expected to take, is to invent, — to sketch the grand design of each operation, and to leave the execution to his deputy; now and then viewing the field as his walks or rides render it agreeable.

For this purpose he should have, I will not say a bailey, but something superior, a *superintendant of his agriculture*, to receive his orders, and see them executed punctually. This man should have a capacity sufficient to comprehend his master's designs, write a fair hand, be very quick at accounts, and not unacquainted with the practice of country business. I do not require him to be an adept in the last; because Xenophon's notion is a just one, That a man should be the tutor of his own bailey. And one much used to the practice of common husbandry, would too often take a pleasure in defeating his master's designs.

Furnished with such an instrument, it should be the gentleman's aim to gain a certain knowledge of every point as he proceeded, and not distract his practice by grasping

grasping at too much land, or at numerous inquiries at once.

It is a public misfortune, that more of the gentlemen who make farming their amusement, do not form clear ideas of experiments; a species of husbandry the most entertaining, and, to the public, the most beneficial. In these trials many points should be laid down as rules of conduct to the director of them, who cannot be supposed to have adequate ideas of the nature of trials founded on the principles of vegetation, and carried on with a philosophical precision.

In the culture of waste lands, the judicious management of an experiment consists in opening a clear account of all the disbursements, which should be thrown together unmixed with other articles of cultivation, and the interest of the amount carried to the succeeding annual expences. The account of which, and the produce, should be regularly kept, that the degree of profit may be ascertained: a point of vast importance to the public good.

Perhaps the common farmers in the neighbourhood manage their pasture lands

in

in a very slovenly manner, suffering them to be overrun with spontaneous rubbish, and quite wet for want of draining. To convert such into fine and profitable meadows, is not sufficient; for the farmers who think of nothing but the riches of a gentleman, will urge the expences being so great, as more than to balance the advantages of the improvement. For this reason, an accurate account should be entered in a book of all such expences, and the returns, that facts in every particular may be brought to convince such as doubt of the profit.— This remark is equally applicable to all improvements by marling, chalking, and other manures, which common farmers are often afraid to practise, lest the expences should exceed the benefit.

Suppose a nobleman or gentleman observes his tenants in much distress through the winter for want of green food for their cattle, the soil being a stiff clay; and consequently, no turnips cultivated. He is informed that cabbages are, in other places, used on such soils with great advantage; to propose their culture to the farmers would be absurd; the novelty would be too great

great for them to begin. On the contrary, he plants many acres of them himself, feeds cows with them, and makes the dairy-wives taste of the butter; fats oxen with them, and shews the beasts to their husbands; keeps five times the number of sheep by means of this vegetable, that they can do on the same extent of land without them. These are all convincing arguments; but they must see the effect for several years before they will be induced to copy the practice.

The gentleman should take the same measures in the introduction of clover, sainfoine, &c. &c. and his superintendant should keep exact accounts of every article of culture, expences, and produce.

In the trial of such practices as are not of acknowledged utility, and such as the new husbandry in the culture of wheat, barley and oats, &c. &c. he should be cautious of advising the farmers to follow his example. He may possibly make such practices answer without there being any probability of common husbandmen doing the same. In such, and many other cases, he should tell them, that these experiments are calculated solely

solely for his own amusement and curiosity, and not with design of recommending to others, unless he finds them more beneficial than he expects. This conduct is absolutely necessary; for, in the introduction of several excellent and really valuable practices, that of a single bad one in the hands of prejudiced and ignorant men, will fatally affect all the rest.

Another point respecting the conduct of experiments, particularly to be attended to by persons of large fortune, is, the plan of *comparative* ones.

I have, more than once, heard no slight ridicule thrown on *small* trials; but it is necessary to limit any general condemnation of that sort. They whose farms are very extensive, naturally fall into the common boast, that such and such trials were over whole fields, and not to small confined spots.—In some cases this is reasonable, in others, the very reverse. If a vegetable not commonly cultivated, or a mode of culture not usually followed, is to be introduced, it is absolutely necessary that the experiments should be *in large*. Sainfoine is recommended to me by a person who has tried it;

It; but how has he tried it? why, on a small patch of ground. It immediately occurs to me, that the culture which he gave a little spot might make it succeed, without insuring the same success when extended to a large field. — Another recommends hoeing of turnips as an excellent custom, from the same experience; but should I be so imprudent as to overlook the difference between the manner in which a small and a large space is hoed? Twenty to one but the degree of culture given to the first much exceeds what the latter receives.

Besides, what authority has a small piece of ground with a common farmer? None. If a gentleman would introduce hoeing of turnips, the clover culture, that of cabbages or carrots, &c. &c. &c. it must not be by roods and half acres of land; but by fields of five, ten, or twenty acres, that it may be seen, the culture is not so difficult as not to admit being extended to a large scale, and even whole farms.

But with *comparative* experiments, all this reasoning would be false. Large tracts of land are in them as deceitful as small ones in the other case. — Suppose I want to know the comparative merit of the drill

and broad-cast husbandry in the culture of wheat: for this purpose the soil must be contiguous, and in every respect of the same nature as to stiffness, lightness, lying dry or wet, barrenness, or fertility. The exposure must be the same; all parts of the field equally sheltered by hedges, trees, hills, &c. &c. In a word, every circumstance perfectly similar: the seed must be of the same heap; the times of all the ploughings, harrowings, sowing, culture, &c. &c. &c. precisely the same to an hour.

Now, let the reader mark the progress of such an experiment, when carried on *in large*. Suppose a field of ten acres is dedicated to this use, ten ploughs are at once necessary, in every operation, from the beginning to the end; for if the whole be not ploughed always on the same day, the accuracy is at once broke in a material point. Thus, a man for executing such a trial must, at the very lowest, keep twenty horses. This is no wanton objection, but mere fact. In spring sowings, the importance of it is more striking. Suppose the soil a heavy moist loam, (not a mouldering rich clay) and sowing with barley. Just after sowing one part of the field, a very heavy

heavy shower of rain comes. I do not ask what the culture has been, the quantity of seed, nor any other particular; I venture to pronounce that part of the field to yield the worst crop; and herein I speak from particular experience. Such an accident in a large experiment, would utterly destroy all that similitude upon which its whole authority depends. A small piece of half an acre, which is ploughed, sown, and harrowed, in an hour's time, cannot be liable to such inequalities. Further;

The variation of soil in the same field is prodigious. I have had particular experience of above 700 acres;—of clays good and bad; loams heavy and light; gravels dry and wet; and I declare, I know not, in that extent, one single field of ten acres, which divided, would form a fair comparison between two methods of culture. During several years, I tried many thousands of experiments, with an eager desire to discover the truth, and I rejected, from absolute conviction, all *comparative* experiments *at large*, as leading to nothing but error.

An exact similitude, such as is requisite for the conduct of comparative experi-

ments, is to be had only in small tracts of land. An acre, or half an acre, may be commanded perfectly similar, when four or five cannot be found. And these remarks are applicable to all sorts of trials on every kind of vegetable, and culture, if comparative.

The conduct of experiments in small, is also much easier conducted, and with a greater certainty than those in large, for which reason they must be more agreeable to a gentleman than the larger, more difficult and complex trials, which are not attended with the same accurate authority.

From all the observations I have been able to make in my course of experimental agriculture, I am clear that a comparative experiment of a perch or two, is of much better authority than one of twice as many acres*.

* Having mentioned my experience in agriculture more than once, it is necessary to add, in my own defence, that I kept, during five years, a very exact register of all my experiments on every part of husbandry, and, in many instances, in points totally neglected or overlooked by all former writers, my trials of the comparison between the old and new husbandry, extended to every kind of grain, pulse, roots, &c. &c. that could be applied to husbandry uses, and, I flatter myself, I discovered the real merit of each with no slight accuracy, as far as extended to two soils. I have spent some time in managing those experiments, and shall lay them before the public, humbly hoping that they may be of some use to mankind,

But after the master has sketched the experiments he designs to make, with whatever penetration, still much must remain on his deputy in attending to the execution. In which province he must have particular injunctions to be accurately punctual, both in seeing the operations of every kind, and also in registering them: nor must this latter circumstance be omitted, although the gentleman should have no thoughts of publishing the result; for even with respect to his own use and satisfaction alone, what a vast difference between general, and consequently, confused ideas of former experiments, and a well-ordered register of every circumstance! If a man forms experiments only for the pleasure of conversing on the subject in company, vanity demands that he should have some better foundation for his assertion than memory alone.

It is much to be wished, that such of the nobility and gentry as make the practice of agriculture a part of their rural amusement, would give such orders to their agents in these matters, as would render their practice of such general utility as I have ventured to hint.

In the next place, I must take the liberty of addressing myself to those gentlemen farmers, that adopt agriculture as an amusement, but cannot afford to make it an expensive pleasure. It is of much importance that such gentlemen should addict themselves to the experimental part of agriculture; but as such practice is extremely expensive, when not conducted with great caution; it is highly requisite that they should not be disgusted at the expence, and abandon altogether a plan, which, with better management, might have been carried on without any fear of such difficulties. This depends on the manner of their framing and executing trials, and their observing a due proportion between the extent of their trials and the annual expence they are willing to assign for such an use.

None can enter into a course of experimental agriculture, without being solicitous that all his trials should be regularly and exactly carried on; at least, that they should never receive any stops for want of money. But those gentlemen who suppose that a variety of experiments is to be tried without

out a large expence, are much deceived. The common husbandry, when well-conducted, is much more costly than generally imagined; how much more so must a system be, that, in many respects, requires a garden-neatness, and, at the same time, a fixed day for several operations to be performed at once?

If expences in such a pursuit come too quick, the consequence is the ruin of the experiments; for none can be of any authority that are not conducted with the most prescribed punctuality. Suppose a gentleman forms a comparative trial between three or four modes of drilling corn, sowing three rows with five feet intervals, with four feet intervals, with three feet intervals; two rows with five, four, and three feet intervals, and variations in the distance of the rows from each other. Now, in such a trial, if an acre, or half an acre be assigned to each mode of sowing, the conduct of the experiment will be found to require greater attention and expence than at first perceived; for all the pieces should be sowed, and receive all the hoeings, weedings, &c. &c. &c. on

the same day; but as the number of the gentleman's labourers may not near admit of this, we may suppose him to set a man to every division at once, and then their advancing regularly will carry an equality through all; but for such exactness, five or six men are necessary at one time to one experiment. Such a trial, we may suppose, to be made on wheat; but a person would naturally turn his attention in the spring also towards barley, oats, pease, and beans; and especially, as he will in the newspapers perceive, that THE SOCIETY offers the same GOLD MEDALS for each. If he is fond of husbandry, he will infallibly extend his trials. Nothing is more amusing; no entertainment more rational; and, at the same time, he cannot fix on a single method, but some book or other will promise him much profit from it.

Besides corn, he cultivates artificial grasses; this is indispensable in the modern elegant field of husbandry. Of these we will suppose lucerne, sainfoine, and burnet claim his attention, and then comes the variations in the method of sowing and planting each kind.

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He may allot very small fields to these experiments, but he will nevertheless find, on many occasions, that his number of labourers must be extremely large, or his trials exceedingly inaccurate.

Hand-hoeing, horse-hoeing, weeding, transplanting, &c. &c. which are all much practised in experimental agriculture, are very expensive operations, and are, nevertheless, for ever renewing, if several vegetables are under trial at the same time.

I have, in different parts of the kingdom, viewed a great number of experiments, and it is amazing what a number of them were suffered to be overrun with weeds. This must either be attributed to the greatness of the expence, or the difficulty of procuring men at certain times, without regularly employing them.

The expence of keeping land clean when sown or planted with any thing in rows, is vastly beyond what is commonly imagined. An acre of lucerne in rows, two feet equally distant, always cost me from 5 s. to 10 s. hand-hoeing, each time. Hand-weeding an acre of drilled corn, from 2 s. 6 d. to 7 s. 6 d. Hand-hoeing an acre of madder, from 2 l. to 3 l. and upwards, each year.

year. In the broad-cast way, I could never get an acre of carrots hand-hoed in a clean masterly manner, through the summer, under 3 *l*. These are but few specimens, among many, of the vast expence of *really* keeping land clean. I have hand-hoed and hand-weeded some crops, five times in one year; and all absolutely necessary to keep the weeds down.

Many writers have been very eager in praise of the new husbandry; but all have confined their views to single experiments, and never calculated the number of men the occupier of a farm, entirely cultivated under the drill-plough, must keep, which is a point of no trivial importance. Another object is the regularity of the employment of such men; for, if a farm requires a great disproportion between the number employed in summer and winter, the labour will be much dearer than in another pretty equally balanced. This is an objection to the drill-culture; for the hoeing, weeding, and cleaning of drilled crops, require a prodigious deal of labour in the summer, but nothing proportionably in the winter.

It is the same with most articles of experimental culture; many men are wanting
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in a hurry for a few weeks, and then very few; then again a great number, and afterwards none at all. It is a very great difficulty to procure men for the proper conduct of experiments, if that part of the farm under common management is not considerable enough to keep a great number of hands in constant pay.

The consequence of being pinched for want of men, while experiments are carrying on, is worse than may at first be imagined. If the weeds rise in a field, and are not vigorously attacked directly, they inevitably get such a head, that not only that crop is much infested with them, but others are certainly neglected to regain the lost time.—The whole system falls into confusion; and the expence of a faulty conduct is much greater in the end, than a perfect one would have been from the beginning. —But how are these errors to be prevented, if a set of men is not always in readiness to turn, at the word of command, to any work of this kind that requires them?

The great point of this management is, therefore, plainly confining the experiments to such bounds as to remain at all times absolutely under command. By
such

such a conduct, the danger of being drawn into too great expences, and such as had been quite unforeseen, is avoided. The utility of the trials, in every respect of accuracy, truth, and authority, is infinitely greater; one genuine experiment being far more valuable than twenty imperfect ones.

Fortunately it happens, that those trials which require many men to be set at work at once, are such as I have already shewn to be best executed in *small*; such as all comparative ones. Those which require large fields, may be carried on in a progressive manner, like common husbandry.

—If I might venture further to advise gentlemen, whose fortunes are not considerable enough to leave them at freedom in all matters of agricultural expence, I should propose something of the following plan of an experimental field.

See Plate VIII. The three long pieces for experiments that require somewhat larger pieces of land than a square perch. They may be applied to comparisons between the drill and the broad-cast husbandry in the culture of wheat, barley, lucerne, cabbages, &c. as such trials require a length sufficient for a plough



plough working without loss. The narrow spaces between them, and along the ends, are ploughed borders, or grass ones, whichever is most agreeable; but the latter are expensive, as they must be kept in constant mowing by way of walks, to view the experiments. The spaces on the other side of the field marked into squares, are beds, broad-lands, or sketches, as they are called in some counties, just a perch wide, with paths on each side, as in the other part of the field. In the ploughing, harrowing, &c. they are worked from end to end at once; but divided into square perches at sowing, according to the trials that are designed. The business of such a field might be transacted without any dangerous expence, and, at the same time, with such accuracy, that the register of the experiments would be much more authentic, and a better guide to conduct the husbandry of the adjacent fields, than acres of trials not equally well-conducted. I have, throughout these sheets, urged the great importance of applying a sufficient sum of money to the business of husbandry in every branch, and none stands so much in need of it as that of experiments, the great importance of which,

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both to the nation at large, and to individuals in particular, well deserves such caution.

Such importance is very far from being merely ideal; for it is, in every respect, melancholy, to see gentlemen farming, surrounded by extensive estates, and all wretchedly cultivated, without their attempting to remedy the evil; and yet this is no uncommon sight. It must be extremely evident, even to those who are most backward to improvement, that such landlords lose infinitely, by not acting with more spirit; and the only theatre for such action is an experimental farm or field.

Insist on no turnips being sown on farms in light or dry soils,—where would be found farmers to hire them? Strike clover out of the lease of an estate, where would the tenants be? Go into the chalk countries, and tell the farmers they shall sow no sainfoin, what reply will they make? Tell a Norfolk, Suffolk, Essex, or Hertfordshire farmer, that he is a fool for hoeing his turnips, what will be his answer? And yet, a century ago, nine parts in ten of the countries here mentioned, would have scorned the idea of any of these most beneficial

ficial practices:—Nay, many parts of England at this day, will not hear of turnip-hoeing. Go at present to a farmer who lives in the rich clays of Essex, and who cannot sow a turnip from the strength of his soil, and tell him, that he may cultivate cabbages with much greater success, than his brethren on light soils do turnips, will he not laugh at you for a fool? But the time will inevitably come, when clay farmers will reject a lease that forbids their cultivating this vegetable.

But how are farmers to gain the knowledge of such important facts, but by the previous practice of gentlemen? Those of small fortune should in this, and similar instances, try the success repeatedly in small pieces of ground, and when the success is favourable, and they clearly perceive the profit, to extend these small trials by degrees, until they have introduced them into the common culture of their farms at large. The continuance of such a practice must, in time, bring the farmers to imitate it; and consequently, add to their own and the kingdom's benefit.

But in prosecuting such a plan, some prudence and attention is requisite to other

points besides the oeconomic part. When a gentleman tries the culture of new vegetable, and finds from a few experiments, that the advantage is not such as he at first imagined, he is too apt to abandon the design, and even to declare peremptorily, *That it will never do: It cannot answer;* and so forth. But it is only from numerous and repeated trials that we can ever venture such assertions. Some vegetables will yield a beneficial produce with a very slight and incomplete culture, others require a much greater attention, and some cannot thrive without a very garden-diligence. Where would be the farmer's profit, if he was to bestow no more cultivation on his wheat than on his oats; to neglect his turnips as much as his wheat, and his hops as much as his turnips? From which we plainly see, that the same attention is not requisite for all.

Now, in forming trials of new vegetables, we certainly may blunder into the omission of not giving to each plant the culture requisite, since it is nothing but long and vast experience that has taught us, among plants commonly cultivated, to treat each according to its nature; and, in experi-

ments of the kind we are now considering, much attention ought to be given, before we pronounce against a vegetable. If it fails in one method, try it in another: if a slight culture will not do, give it an extraordinary one, and try it in every way before it is absolutely rejected.

I have seen cabbages worth from 20 *l.* to 30 *l.* an acre, whole fields through: and lucerne that will feed, at the rate of four or five cows *per* acre, from April to October, inclusive; sainfoine often yields three tons of hay *per* acre, and on soils far from rich. Carrots are frequently worth, from 12 *l.* to 30 *l.* an acre. Now, if cabbages are planted upon dry turnip-land, an improper sort fixed on, that will not last through the spring;—good manuring, horse and hand-hoeing, or, in a word, all the exertions of spirited husbandry omitted, what profit can be expected from this vegetable? If lucerne is sown on wet soils, or not kept most perfectly clean from weeds, it cannot answer. Sainfoine may be sown on spewy clays, and carrots on a limestone chalk, not six inches deep; in case of ill-success, who can be surprised? The fault is palpably in the cultivator, not the vegetable.

But besides the circumstances of soil and culture being perfectly adapted to the nature of the crop, another point not to be overlooked, is the chance of ill success from seasons. A gentleman may, in the experiments he forms on vegetables not usually cultivated, hit off even the very best methods, and yet fail of success. The most common of crops sown universally by farmers fail sometimes. It would be a strange resolution in any one, because he lost a crop of turnips, to determine never more to have any thing to do with that vegetable.

For these, and many other reasons, it is much to be wished, that gentlemen, when they amuse themselves with farming, would give some of their attention to the devising and trying experiments on such parts of agriculture, as are peculiarly connected with their soils and situations. It is of great use when they consider these attentively, and penetrate into their deficiencies, that they may conduct their trials with an eye to genuine utility: the happiest success cannot fail of rewarding such attention; and, surely, it is a very pleasing idea in any one to reflect, that even his pleasures

pleasures and amusements, are made conducive to the ease, the affluence, the happiness of mankind.

I have endeavoured, in these sheets, to elucidate some points relative to the practice of rural oeconomy, which have not been so much attended to by preceding writers as they deserved. I am very sensible, that my endeavours have produced but a slight sketch; but slight as it is, it opens a field for more penetrating inquirers to move in, and to reduce such points as I have only conjectured, to absolute certainty. Husbandry is so much the taste of the present age, that any inquiry that tends to enlighten and further its practice, cannot, I think, be ill received, provided it is the effect of real experience. My subject being new, should influence the reader to judge with candour. No part of agriculture is more important.—It is the foundation of every other.—A vast number of the errors every day to be observed in *practice*, flow from one false *idea* at setting out; the supposition, that more land may be managed with a sum of money than is fact. This is the source of almost perpetual and general error. I have endeavoured to trace it

through all its progress, by shewing the truth in a variety of instances; but I am sensible, that the ideas and experience of an individual are too limited for completing such an undertaking; for this reason, I cannot but be solicitous of information from every quarter: whoever will point out my omissions by letter, will lay me under no inconsiderable obligation. I could wish this sketch might be rendered truly useful to my brother farmers in the most critical moment of their lives, that of hiring their farms; but it is requisite that it should embrace the *great outlines* of the stock, and annual expence of all kinds of farms; such therefore, as I may have omitted, that are of sufficient consequence for public attention, I much wish to be informed of, that, with the assistance of others, I may render my endeavours as useful as I always wish them to prove.

FINIS

